

CELEBRATING TRACES OF HISTORY
THROUGH PUBLIC OPEN SPACE DESIGN
IN BEIJING, CHINA

A CREATIVE PROJECT
SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIRMENTS
FOR THE DEGREE
MASTER OF LANDSCAPE ARCHITECTURE

BY
LIN WANG
CARLA CORBIN – COMMITTEE CHAIR

BALL STATE UNIVERSITY
MUNCIE, INDIANA

MAY 2014

ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to the three committee members of my creative project—Ms. Carla Corbin, Mr. Robert C. Baas, and Dr. Francis Parker—for their support, patience, and guidance. Especially Ms. Corbin, my committee chair, encouraged and guided me to develop this creative project.

My gratitude also goes to Dr. Geralyn Strecker for her patience and assistance in my writing process. My thanks also extended to Dr. Bo Zhang—a Chinese Professor—who helped me figure out issues between Chinese and American culture.

I would also like to express my gratitude to the faculty of the College of Architecture and Planning from whom I learned so much.

Finally, special thanks to my family and friends for their love and encouragement during such a long process. The project would not have been completed without all your help.

TABLE OF CONTENT

CHAPTER1. INTRODUCTION	1
1.1 Problem Statement	1
1.2 Subproblems	2
1.3 Research Methodology	3
1.4 Assumptions.....	4
1.5 Delimitations.....	4
1.6 Definition of Terms	4
1.7 Significance of the Study	5
CHAPTER 2. LITERATURE REVIEW.....	7
2.1 Development of Cultural Heritage Charters and Standards around the World	7
2.1.1 The Athens Charter and the Venice Charter	8
2.1.2 Charters Approved by ICOMOS	8
2.1.3 UNESCO Recommendations	9
2.1.4 Conclusion	10
2.2 Historic Preservation Situations and Standards in China.....	11
2.2.1 Laws and Regulations of Chinese Heritage Protection	11
2.2.2 The Current Situation of Heritage Protection in China.....	12
2.3 Preservation Standards for Historic Sites in the United States	14
2.3.1 The Secretary of the Interior’s Standards for Historic Preservation	15
2.3.2 Standards for Rehabilitation.....	16

2.4 Cultural Landscape in China.....	18
2.4.1 Characteristics of Civic Plazas in Existing Chinese Open Spaces.....	18
2.4.2 Chinese Leisure Preferences in Open Spaces	19
2.4.3 Chinese Folk Custom Patterns	22
2.5 Case Studies	29
2.5.1 Berlin Wall	29
2.5.2 York City Wall.....	32
2.5.3 Nanjing City Wall	36
2.6 Conclusion	39
CHAPTER 3. BACKGROUND	42
3.1 Introduction of Beijing City.....	42
3.1.1 Ancient Beijing City (before 1949).....	44
3.1.2 Modern Beijing City (after 1949)	50
3.2 Ancient Beijing City Wall	55
3.2.1 Introduction of the City Wall	55
3.2.2 Beijing's City Wall through Successive Dynasties	60
3.3 Demolition of Beijing's City Wall	75
3.3.1 General History	75
3.3.2 Debate about the Demolition of the Wall and Potential Solutions	76
3.3.3 Significance of Liang's Proposal to This Creative Project	79
3.4 Significance of the Ancient Wall for Today's Modern City	80
3.5 Conclusion	82

CHAPTER 4. SITE HISTORY, SITE SELECTION, INVENTORY AND ANALYSIS	83
4.1 Beijing's Historic City Pattern and Modern Urban Planning Ideas	83
4.2 Current City Wall Policies and Projects	87
4.2.1 The Current Policy	87
4.2.2 South Central Axis Park and Yong Ding Men Tower	90
4.3 Existing Conditions of Beijing's Historic City Wall Remnants	93
4.3.1 Liao and Jin City Wall Museum	93
4.3.2 Historical Remnants from the Yuan Dynasty (AD 1206-1368)	94
4.3.3 Historical Remnants from Ming and Qing Dynasty	99
4.4 Site Selection Criteria	119
4.4.1 Contexts of Three Alternative Sites	120
4.4.2 Discussions of Criteria	127
4.5 Site Location and Boundary	130
4.6 Historical Context of the Site	131
4.7 Surrounding Land Uses	132
4.7.1 Historical Landmarks and Construction	134
4.7.2 Surrounding Green Spaces and Potential Future Opportunities	136
4.7.3 Height of Surrounding Buildings and Views	138
4.7.4 Surrounding Residential Land Uses	140
4.7.5 Surrounding Institutions within 5-minute Walking Distance	143
4.8 Transportation	144
4.9 Topography	147

4.10 Site Contexts Summaries	149
4.11 Strengths, Problems and Opportunities.....	150
4.11.1 Strengths.....	151
4.11.2 Problems.....	151
4.11.3 Opportunities.....	152
CHAPTER 5. SITE DESIGN	153
5.1 Goals and Objectives	153
5.2 Design Process	154
5.2.1 Basic Guiding Principles.....	155
5.2.2 General Design Process	155
5.3 Creative Project Design Description.....	158
5.3.1 Master Plan	159
5.3.2 Design Concept Diagrams	163
5.3.3 Schematic Design.....	169
5.4 Future Contributions	183
CHAPTER 6. CONCLUSION AND REVIEW OF THE PROCESS.....	185
LIST OF TABLES	188
LIST OF FIGURES	189
WORKS CITED	197

CHAPTER1. INTRODUCTION

The rapid development of modern society has led to a variety of contradictions. The rapid pace of urban modernization provides many people more convenient and better lives. However, new construction can drastically transform the look of the city, resulting in the loss of historic elements and character.

As the capital of China, Beijing has developed rapidly over recent decades. With an 800-year history, the city is rich with diverse heritage and cultural traditions. However, urbanization has accelerated the growth of density, resulting in the loss of historic fabric and identity, and less public and urban green spaces in the urban core. In present-day Beijing people visiting the central downtown can have difficulty finding places with historic atmosphere, except when entering the Forbidden City or the Summer Palace. To explore the potential of historic elements in a modern city, this creative project will focus on Beijing's ancient city wall as witness of dynastic changes, as representing the historical vicissitudes of areas adjacent to the wall, to demonstrate value in heritage and memory, and to commemorate the wall and its surroundings in the contemporary city center.

1.1 Problem Statement

The project celebrates the history and memory of the city wall in contemporary Beijing. First, this creative project explores the dynamic history of the city wall and its significance

as witness to complex dynastic changes. Second, it examines major examples of the emergence of historic and heritage standards and charters internationally, and makes comparisons with American and Chinese practices. Through study and documentation of various projects dealing with the wall, as well as its absence, in the modern era to the present day, research will demonstrate the need for preservation and commemoration of the ancient city wall. Finally, based on investigation and analysis, the project will develop suitable design strategies aimed toward presenting a vivid public landscape that incorporates historic identity and reclaims the city wall in ways that have meaning in Beijing's contemporary urban center.

1.2 Subproblems

To clearly state the issues, this creative project explores other subquestions related to the main focus:

- ① How have city walls and urban patterns varied through dynastic changes in Beijing's history?
- ② How much of Beijing's city wall is still intact, and what is its condition?
- ③ What is the present vertical profile compared with the height of the wall before the 1950s?
- ④ What is the impact of the city walls on public space in cities that have integrated new development with their ancient city walls?
- ⑤ Do residents have memories and stories of the city wall?

-
- ⑥ What strategies and principles can help preserve the historic landscape and enhance the quality of life in the surrounding neighborhood?
- ⑦ How did the city wall connect with its surrounding area in the past, and what strategies could establish new connections between walls that have been demolished and other remaining traditional structures?
- ⑧ What is the historical footprint in the selected site, and how will the footprint influence design strategies?
- ⑨ What design strategies could present the city wall's 800-year history in contemporary public space?

1.3 Research Methodology

The research methods of this creative project focus on resource collections, site surveys, literature reviews, and case studies. Projecting old maps onto the current Beijing city map requires collecting diverse materials, including base maps of different dynasties, GIS maps if possible, along with photos and images, and documentation of walls and towers that have been preserved. The research will also include fieldwork in Beijing to conduct site investigations through photography, measurements, sketches, and spatial analysis. In addition, documenting and analyzing successful precedents involving a city wall or historic presence in urban centers will provide inspiration. The field survey will compare these precedents with on-site conditions to determine the best strategies for commemorating Beijing's city wall.

1.4 Assumptions

This creative project assumes that Beijing's government will support the proposed heritage conservation program and the new work, and that the few local residents whose homes might be affected will be provided housing, within the rebuilt areas of their community.

1.5 Delimitations

- The project will not deal with engineering problems.
- The project will not address actual cost and funding problems.
- The project does not consider transportation policies along the 2nd Ring Road.

1.6 Definition of Terms

- ICOMOS: International Council on Monuments and Sites. This is the only global non-governmental organization that promotes studying the theory, methodology and technology of conservation applied to monuments, historic areas and sites (ICOMOS).
- UNESCO: United Nations Educational, Scientific and Cultural Organization. Its purpose is to foster peace and security among nations by mobilizing for education,

building intercultural understanding, pursuing scientific cooperation, and protecting freedom of expression (UNESCO, “Introducing”).

- European Council: This institution of the European Union consists of heads of state of the member nations and the president of the commission. The European Council provides the necessary impetus for development and defines the EU’s general political direction and priorities (European Council).

1.7 Significance of the Study

Beijing’s city wall has been a great source of historic identity. In ancient China, the most important function of the city wall was as external defense in war times. The other function was to geographically define one district from another. In modern society, the city wall gradually lost its defense function. At the time of the ascendance of the New People's Republic of China in the 1950s, the government removed the city wall as the symbol of a feudal society that blocked blocking city development. Built from 1368 to 1445 of the Ming Dynasty, the city wall was originally 50 kilometers long, but now only 1,500 meters of the wall remain, in a broken line along the Second Ring Road.

This project explores Beijing’s ancient Inner and Outer City walls, which were the boundaries of the old city, but which have also effectively maintained a traditional city pattern in some areas. Ancient city walls in Beijing have been relocated several times with dynastic changes over eight centuries of history. The wall itself can tell rich stories. This

project will contribute to rediscovering and celebrating the remaining city wall and its history by evoking recollections of what once existed, giving the lost parts of the wall visibility, and educating people about the importance of heritage protection. Providing a new public space with a vivid historic presence will make opportunities for varied experiences and benefits for visitors as well as local residents of the traditional neighborhoods.

CHAPTER 2. LITERATURE REVIEW

This chapter contains a three-part literature review addressing themes of this creative project. The first part explores the development of cultural heritage charters and standards around the world, historical conservation situations and standards in China, and preservation standard for historic sites in the United States. Suitable guidelines for the project are drawn from these different national and international organizations that are engaged in protecting historical and cultural heritage sites. The second part explores characteristics of Chinese public spaces, distinguishing them from other nations in the formal spatial design. The third part introduces three precedents that offer references about historical wall preservation and representation in modern society.

2.1 Development of Cultural Heritage Charters and Standards around the World

Overseeing the standards for preserving historical sites around the world through the past century, UNESCO, ICOMOS, the European Council and other organizations have adopted a series of international documents addressing heritage conservation. These conventions and charters significantly influence the development of historic preservation, and have obtained international consensus in this field of cultural heritage protection. The following section explores some iconic and influential charters that help gradually form the international standards of historic preservation, and finally guide the design of this creative project.

2.1.1 The Athens Charter and the Venice Charter

“The first attempt to establish a coherent and logically defensible philosophy for building conservation was in the Society for the Protection of Ancient Building’s Manifesto of 1877.” The Manifesto consists of a plea to “put protection in place of restoration.” It is commonly known as the SPAB Manifesto—a starting point for historic preservation, after which other policy statements have been proposed (Gillon). In 1931, the International Museums Office organized the Athens Conference to establish basic principles for international conservation. In 1964, the Second International Congress of Architects and Technicians of Historic Monuments met in Venice and approved an international charter for the Conservation of Monuments and Sites. Known as the Venice Charter, it superseded the Athens Charter, and was adopted by ICOMOS, which was established in 1965 (Gillon). This was an important milestone for conservation development. The Venice Charter built approaches to commemorate and protect historic surroundings, and established the basic principles for historic conservation (Zhen). These were the first few influential conferences and charters that established the foundation of the international historic preservation movement.

2.1.2 Charters Approved by ICOMOS

ICOMOS-approved charters present ideas about integrated conservation that guide the design principles of this creative project. In terms of historic preservation, integration addresses the conditions of heritage sites, as well as the social and functional elements. Integrated conservation aspires to combine urban development with historic conservation

to provide necessary urban infrastructures but also to celebrate traditions.

The Venice Charter influenced many subsequent standards and formal conventions related to building conservation. Some of these documents are significant and approved by ICOMOS. In 1975, the Congress on the European Architectural Heritage issued the Declaration of Amsterdam, which emphasizes “the importance of integrating conservation of the architectural heritage into the urban and regional planning process” (Gillon). The Amsterdam Charter has been one of the most significant tools for integrated conservation. The 1987 Washington Charter considers broader integrated principles that bring cultural heritage conservation into urban planning (Zhen). The Washington Charter and the Amsterdam Charter call for applying integrated conservation in urban planning.

In 1983, the Appleton Charter for the Protection and Enhancement of the Built Environment, considered interventions in historic environments. It states that “respect for original fabric is a fundamental basis for the activities of protection and enhancement.” It encourages using traditional materials, avoids the distinguishability of new work, and respects the integrity of the structure (Gillon).

The ideas of integrated conservation and respect for original fabric all propose to protect historic sites with careful respect while addressing broad social meanings. Even though they are difficult to practice without government support, this creative project will address these two ideas to guide the historic aspects of the design.

2.1.3 UNESCO Recommendations

The United Nations Educational and Scientific Organization was founded in 1947 to

promote various conventions and other instruments for protecting cultural heritage.

UNESCO's recommendations Concerning the Safeguarding of the Beauty and Character of Landscape and Sites of 1962 addresses the protection of rural or urban landscapes which have cultural or aesthetic interests. In 1972, a recommendation addressed national-level protection of Cultural and Natural Heritage. It "defines the terms *cultural and natural heritage*, and provides a lengthy statement of general principles, the organization of services, and protective measures" (Gillon). In 1972, the Convention for the Protection of the World Cultural and Natural Heritage introduced the concept of World Heritage Sites. This is a significant modern milestone for national heritage conservation. In 1997, UNESCO identified Ping Yao—a Chinese city with a well-preserved old city wall—as a World Heritage site. The third part of this chapter will introduce more information about Ping Yao as one case study.

2.1.4 Conclusion

These regulations and charters described above illustrate the development of international historic conservation ideas. They provide guiding principles and appropriate responses for conservation issues, but are not prescriptions to solve all problems. Abstracted from the above documents, four ideas regarding the existing historic elements can be proposed as guidelines for the design portions of the creative project:

- Comprehensive analysis of the site and context
- Integrated consideration of historic elements in urban planning
- Minimum intervention in the historic fabric

- Respect for contributions from all historic periods

This creative project will refer to these four historic conservation ideas as guidelines in the proposed design. Besides these four international guidelines, Chinese regulations and standards about heritage protection should be explored and discussed for design strategies.

2.2 Historic Preservation Situations and Standards in China

2.2.1 Laws and Regulations of Chinese Heritage Protection

Historical relic protection in China started during the early 20th century. After the new People's Republic of China was established in 1949, the government enacted the Republic of China Culture Relics Protection Law (中华人民共和国文物保护法) in 1982. This law includes eight chapters, separately introducing methods to distinguish among different levels of relics¹ units according to their historical, artistic, and scientific value; ruling how to manage archaeological excavations; national and private cultural relics collections; cultural relics leaving the country; and stating rules of reward and punishment. These regulations clearly define basic principles and methods to protect cultural relics in China. Based on this law and consulting the 1964 Venice Charter, the Chinese government formulated its Chinese Culture Relics Protection Regulations (中国文物古迹保护准则) in 2000.

These regulations are stated as ten protection principles from Articles 18-27.

Considering the four guidelines above drawn from international charters, this creative

¹ The word "relics" in China means all the legacies with historical and artistic values, including from large-scale heritage sites to small-scale historical object fragments.

project selects the following four relevant items as site design principles:

18. Relics must be protected and preserved in place. Only in the event of natural disasters or necessary major national construction projects should relics be moved or otherwise disturbed.

21. Protect the Relics' existing physical status and historical information. Repair should be based on existing valuable materials and must save traces of important events and figures. All signs of repair should document with detailed records and permanent time marks.

24. Protect the Cultural Relics' surrounding environment. Eliminate new items, unsafe parts or that which could destroy elements of the environment; put forward protection measures.

25. Do not allow reconstructions if buildings have not existed. The reconstruction should have obvious markings or signs.

Following these four principles in addition to the four cited above, this creative project will celebrate the remaining wall fragments with respect, trace historic footprints, present important events and figures, minimize new construction, and integrate traditional patterns and materials in the design.

2.2.2 The Current Situation of Heritage Protection in China

ICOMOS was established in Poland in 1965 to study heritage protection. In 1993, Chinese experts and scholars engaged in studying cultural heritage protection established a

branch of ICOMOS named ICOMOS/CHINA, short for Chinese Commission for the International Council on Monuments and Sites (ICOMOS CHINA). In 1995, the National Cultural and Heritage Conference held in Beijing introduced the concept of “Great Heritage.” In 2005, the Chinese government officially established a special fund for Great Heritage Protection, investing two billion RMB (a Chinese money unit equaling approximately 0.12 in Euros) in this unprecedented project. In 2006, the National Eleven-Five-Year Cultural Development Plan (国家“十一五”时期文化发展规划纲要) proposed 100 important heritage sites throughout China for this huge protection project (“Great Heritage Protection”).

In the article “Chinese Great Heritage Protection,” Lu defines a Great Heritage candidate site as a large ancient cultural site, composed of remains and related environments, generally of great archaeological significance, or related to an important political, economic, cultural, or military event in the history of China. Great Heritage mainly includes eight types divided into history and culture: original settlements, ancient capital sites, tombs and graves, religious sites, water conservancy infrastructures, traffic infrastructures, military infrastructures, and handicraft industry sites. For instance, the Great Wall in Beijing belongs to military facilities heritage. The Terracotta Army and Mausoleum of the First Qin Emperor belong to tombs and graves heritage.

Guo and Zhang state four types of protection and utilization of Great Heritage Protection:

- Developing the whole site as a heritage park
- Combining heritage sites with scenic zones to create tourist attractions

- Developing the whole site as a forest park
- Connecting heritage protection with modern agriculture development to create heritage cultural agricultural parks

By 2005, of 1,272 national key cultural relics protection units, 412 belonged to the Great Heritage protection, accounting for one-third of the total. Of 7,000 province-level protection units, there are nearly 2,000 Great Heritage sites, almost one-third of the total (Lu, J.). Many more heritage sites with historic value do not yet belong to the Great Heritage program in China. The government-proposed 100 Great Heritage project aims to establish a system of heritage protection. There is still much to do, but this program is a good start for effective heritage preservation in China. The creative project site is small compared with those of the Great Heritage Protection project. However, the city wall has witnessed the long history of Old Beijing as the country's ancient capital, in contrast with this site today, in the crowded urban center, along one of the busiest roads in Beijing. However, with application of heritage and conservation principles, this part of the wall can make visible aspects of history and its lessons for people today and for future generations. Suitable design of public space will bring direct benefits for the surrounding neighborhoods and residents' leisure time.

2.3 Preservation Standards for Historic Sites in the United States

As an historic site, this creative project will follow principles abstracted from international conservation standards as well as Chinese heritage protection regulations. A

third body of thought exists in preservation guidelines in the United States, which are examined in the following section. Even though the U.S. has a shorter history than most countries in the world, new developments in American heritage and preservation will be considered and how these address important buildings, landscapes and heritage sites, and those associated with historic figures and events.

2.3.1 The Secretary of the Interior's Standards for Historic Preservation

The United States uses four treatment approaches as guidelines for preserving historic sites. In hierarchical order, these are preservation, rehabilitation, restoration, and reconstruction. According to the National Park Service, “the first treatment, Preservation, places a high premium on the retention of all historic fabric through conservation, maintenance and repair.” Rehabilitation “emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work.” These two standards both focus on preserving materials, features, spaces, and historic characters. The third treatment, restoration “focuses on the retention of materials from the most significant time in a property’s history, while permitting the removal of materials from other periods.” Reconstruction is the fourth treatment, establishing limited opportunities to “recreate a non-surviving site, landscape, building, structure, or object in all new materials.” These standards are neither technical nor prescriptive, but intend to help protect irreplaceable cultural resources with responsible preservation practices (National Park Service).

These four standards complement the previously-discussed international and Chinese historic protection approaches, which emphasize careful conservation with minimum interventions in heritage sites. However, conflicts can exist between theory and implementation in many situations. The four American standards for historical sites apply specific methods to deal with the historic fabric and new construction. In their approaches, new construction could also be a type of protection, to better preserve the outlines or traces, history, and embodied thought of heritage. Considering the processes of site analysis, design goals and objectives, the second approach—rehabilitation—is the most suitable treatment for this creative project’s aims. Consequently, the project will also be informed by rehabilitation standards and guidelines described in the following section.

2.3.2 Standards for Rehabilitation

The appropriate treatment requires careful design considerations and also suggests appropriate design strategies for the creative project. The US standards provide a vocabulary to describe the approach of communicating with a historic site—“Rehabilitation.” Rehabilitation standards and guidelines show specific approaches to preserve portions or features of heritage sites, which can be applied with the Beijing city wall and a compatible use.

The U.S. National Park Service states 10 standards for rehabilitation. Considering the complicated history of Beijing’s city wall, the creative project site, and the programmatic goals of this project, the following five standards will be applied:

1. “A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.”
2. Historic character of a property will be preserved. The project will avoid removing historical materials or altering features and spaces which characterize the property.
3. “Each property will be recognized as a physical record of its time, place, and use.”
No change will be undertaken that creates false historical evidence, such as adding or rebuilding features from other historic properties.
4. “Changes to a property that have acquired historical significance in their own right will be retained and preserved.” In this project, the railway crossing the old wall during the early People’s Republic era played a significant role in the history of the time, but does not exist anymore. This project will make the footprint of this railway meaningful and visible for the public.
5. New additions and new construction will not destroy “historical materials, features, and special relationships that characterize the property” and will be compatible with those historical features.

These international and Chinese heritage protection ideas offer foundational theory and guidelines for respectful conservation. The U.S. standards supply specific applications for dealing with new construction in historic sites. Examination of the appropriate guidelines provides principles for design strategies and applications in the historic context, which strengthens the literature explorations for this creative project.

2.4 Cultural Landscape in China

After developing guidelines for addressing the historic and heritage aspects of the creative project site, it is also important to explore the cultural characteristics of Chinese landscape, and people's leisure preferences in open public spaces. As a resource for public space design and details, traditional Chinese folk art and customs will be examined.

2.4.1 Characteristics of Civic Plazas in Existing Chinese Open Spaces

Through ancient China's history, people were controlled by feudal rules and absolute imperial powers. They had few rights to express their thoughts about public spaces or their use. Well-designed landscapes, gardens, and plazas only existed for emperors and other with power. Consequently, few civic plazas—for the general public's use—existed in old China (Xu, Y.). When China transitioned from feudal to modern society in the early 20th century, it was under colonial rules for a long time, and western culture greatly influenced city modernization. As the new idea of constructing public municipal facilities came to be considered in urban development, civic plazas and parks became important considerations in urban design. However, since the parks only served the needs of certain colonial powers, many town or city squares were reserved for colonial functions, or for displays of authority. Under this situation, the civic plaza was rarely used by the home culture. Most designs were strictly copied from western cultures, without considering Chinese social customs and environments (Xu, Y.).

Chinese modern open space design has two main development periods: from the early 1950s to the Reform period, and from the Opening-up beginning in the 1980s to the present

day. During the first period, public designs were influenced by political concerns, simple gathering spaces, partially a means to demonstrate power (Xu, Y.). Various public spaces springing up after the Reform and Opening-up periods in the 1980s began to offer true civic plazas, allowing more of the population to pursue suitable outdoor activities. Many excellent designs were built during that time. However, rapid growth has resulted in problems. Numerous designs used a too-large scale (Xu, Y.). For instance, in recent years many urban areas have built giant squares, large music fountains, and decorative buildings. Expanses of rigid pavement wastes space, materials, and financial resources, plus causes hydrology problems.

With multiple functional zones, this creative project will develop diverse open areas in the site. New designs must address the creation of space and appropriate enhancements. Drawing from lessons of modern construction in China, suitable plazas and spaces will be designed with careful consideration of scale and site conditions.

2.4.2 Chinese Leisure Preferences in Open Spaces

Different cultural backgrounds influence people's behaviors and expectations. Compared to other nations, people in China prefer different leisure activities in parks, gardens, and public open spaces. City parks and open public spaces around neighborhoods provide public leisure spaces and cultural activity centers that are good for holiday celebrations as well as morning/evening recreation. In Chinese public green spaces, retired people might walk with birds or dogs, sing and dance in a group, or do Tai Chi or Kung Fu.

Young people might exercise, read, or socialize. Table 2.1 shows four typical activities of people using parks. Understanding these different preferences will help guide the creative project to ensure the proposed design will effectively serve nearby communities.

Table 2.1 Four Types of People's Activities in Open Spaces (Drawn from Xu, Y.)

Activity Types	Description	Examples	Public Participation	Action Mode	Degree of Public Display	Requirements
Performance Activity	Performing in the square and talking about objects in the park	Social dancing, group singing, rock climbing, skateboarding, etc.	Active	Interact	Strong	Spaces with stage functions
Communication Activity	Communicating in general between two or more persons, including large-scale events	Blind dating in a group, English speaking in English corner, etc.	Active	Interact	Less strong	Privacy and comfortable space, suitable for auditory and visual senses
Observation Activity	Observing architecture, landscape, or activities	Audience, tourists, or pedestrians etc.	Passive	Accept, give occasional feedback	Normal	Environments with high-quality visual or auditory characteristics
Random Activity	Doing random activities, not joining public events	Reading, napping, sunning, resting, or passing through	Passive	Giving occasional feedback	Weak	Comfortable and suitable spaces



People Doing Tai Chi (163)



Walking with Birds (Nipic)



Dancing in the Park (Xinmin)



Elder Dancing Women (News.CCTV)



Blind Dating in the Park (Wenxuecity)

Figure 2.1 People in the Park

This creative project will focus on Chinese people's leisure preferences, creating diverse spaces to satisfy different individuals and activities. Besides telling stories of history in this relics park, this creative project will seek to improve with spatial design that supports diverse experiences. For instance, compared with public spaces in other countries, the new design will create some specific activity spaces which Chinese people welcome and prefer, such as areas for airing birds, dancing, or a Tai Chi plaza. Besides considering Chinese preferences, this project will also use traditional folk patterns in the design, displaying artistic elements that evoke historic dynasties in order to create meaningful public spaces.

2.4.3 Chinese Folk Custom Patterns

China's long 5,000-year history of civilization has left abundant cultural heritage. As one of these historical presences, the city wall shows the architectural art of ancient China. As Beijing becomes increasingly modern and adopts more elements of western culture, people are gradually losing their connections with folk culture. To bring visualize recollection to this heritage project, the design will use infrastructures with traditional Chinese folk art patterns. Developed from the Yuan Dynasty, the current wall has witnessed 800 years of history. This section explains what Chinese folk culture is, and also explores distinctive characteristics of structures from different dynasties. In this creative design, this abstracted imagery will be used to make spaces that follow a timeline.

2.4.3.1 General Folk Culture

Displayed through diverse media, Chinese folk customs include multiple aspects, such as in traditional costumes, tea culture, paper cutting, Chinese Opera, folk tales, and so on. Especially influenced by the thoughts of ancient Confucianism and Buddhism, many expressions of folk arts prefer red color and curved lines, meaning “lucky and happiness” in the future. These patterns played important roles in the lives of ancient Chinese people. From large-scale buildings to small parts of chopsticks (Figure 2.2), designs of ancient times often used folk custom patterns. In this creative project, design details will look to folk custom art patterns to help convey historical character. Facilities like benches, lights, pavements, and even structures will display traditional folk art, creating the historical atmosphere.



Teacup and Chinese Knot



Traditional Chinese Door



Paper Lanterns



Teacup with Auspicious Clouds Pattern



Calligraphy



Facial Makeup

Figure 2.2 Traditional Chinese Elements

2.4.3.2 Characteristics of Different Dynasties

Used since ancient times, folk art symbols have carried forward into the present, and still have meanings for people in today's cities. Different dynastic developed their own characteristics of folk culture associated with each era. Researching their differences can distinguish dynastic features in this design.

- Yuan Dynasty (AD 1206-1368)

Yuan was called the “Nation on the horse,” which visually expresses that Yuan people were good at horsemanship and hunting. Limited by technology, the styles of architecture and art during this time were simple and rough with little decoration. Bronze, brick, clay, and wood were most often used for construction at that time.

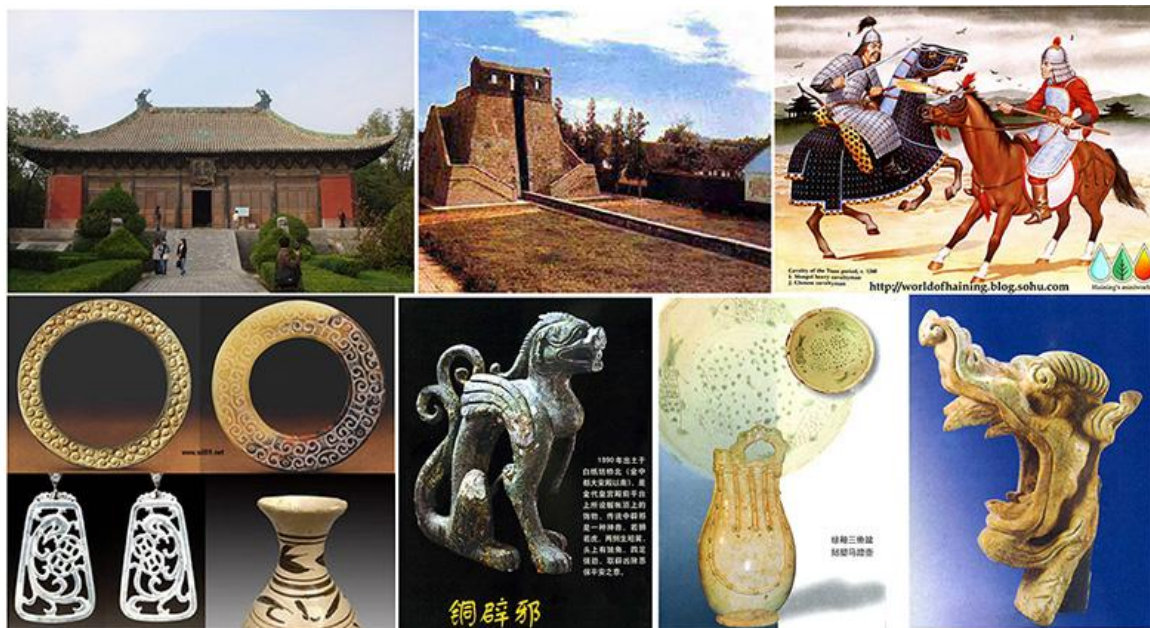


Figure 2.3 Architecture and Art during the Yuan Dynasty

- Ming Dynasty (AD 1368-1644)

Ming was an open, blooming, and flourishing dynasty. After the first few years of wars, Ming was most advanced and peaceful. Styles of architecture and art features were simple but clean with imposing decorations. Wood, stone, and brick were used most during this time.



Figure 2.4 Architecture and Art during the Ming Dynasty

- Qing Dynasty (AD 1616-1911)

The Qing was a long dynasty and mostly peaceful and flourishing until its decline. The “Closed-door” policy in Qing resulted in a backward and enclosing nation. This once glorious dynasty finally waned due to the policy. Developing from flourishing Ming, most Qing architecture and decorations were prosperous and luxuriant. Elegant reliefs were created with wood, stone, and brick.



Figure 2.5 Architecture and Art during the Qing Dynasty

- Republic of China (AD 1912-1949)

With western countries coming into China, the early Republic of China carried forward the Qing Dynasty, but was also greatly influenced by western cultures. Consequently, design during this era featured a combination of eastern and western culture. New industries and technologies emerged during this turbulent time. Many architectural styles were still influenced by Qing, but increasingly pursued western-style decorations. Stone and iron were often used to display new styles that were totally different from ancient times.



Figure 2.6 Architecture and Art during the Republic of China

The following table summarizes the different characteristics of these dynasties.

Table 2.2 Distinguishing Yuan, Ming, Qing and the Republic of China

Dynasty	Time (AD)	Decoration Style	Materials	Potential Design Use
Yuan	1206-1368	Simple, rough, nonobjective	Bronze, brick, clay, wood	Horse sculpture, bronze relief, benches, lights etc.
Ming	1368-1644	Simple, clean, imposing	Wood, stone, brick	Brick relief, benches, lights
Qing	1616-1911	Prosperous, luxurious	Wood, stone, brick	Stone relief, benches, sculpture, lights
Republic of China	1912-1949	Prosperous, western-style	Stone, iron	Stone relief, iron art sculpture, benches, lights

2.5 Case Studies

Precedent research focused on historic walls. This section offers three case studies as having bearing on this creative project: the Berlin Wall in Germany, the York, England City Wall, and the Nanjing City Wall. The Berlin Wall broke the city in half, a symbol of the occupation to Germans, but also an international symbol of Cold War bitterness. The York City Wall no longer carries traces of conflicts or political drama, and has become part of the city's identity that the residents are proud of maintaining. The Nanjing City Wall has the longest remaining historical walls in China, and has been built into a city park network with historical themes. These three different precedents supply useful references through diverse aspects, which can offer this creative project an expanded view of how historic walls can have significant presence in their modern-day cities.

2.5.1 Berlin Wall

The Berlin Wall was built after the Second World War to separate East and West Germany. Following the war, the United States, Great Britain, France, and Russia divided the city into four sectors, each controlled by a different country. The United States, Great Britain, and France joined three sections together to form a democratic state called "The Federal Republic of Germany or West Germany." The Russian section became a communist state, called "The German Democratic Republic of East Germany." The occupation of Germany was seen as a kind of punishment by the world powers. Russia built the Berlin Wall to separate the two states and to stop people from leaving East Germany to escape communist rule. The concrete wall was 107 km in length and averaged

4 meters in height. Anyone who tried to cross the wall would be caught or even shot (Berlin Wall Memorial).



Map of Berlin Wall in 1961
(Berlin Wall Online)



Old Photograph of the Berlin Wall
(Baiké)



Street Art: Berlin (Tipatipa)



Graffiti on the Berlin Wall (Jagendorf)



Climbing up the Berlin Wall (Tiexue)



Protecting against the Dismantling (591hx)

Figure 2.7 Images of the Berlin Wall

In 1989, East and West Germany reunited, and people aspiring for freedom hated the concrete barrier of the Wall. Thus, almost the entire Berlin Wall was taken down in 24 hours. Today, only one section remains, reminding people of that special period in history. Some Germans still would not like to see the Berlin Wall. However, people start thinking rationally about it. As part of historical memory, the government restored part of the wall as a tourist destination, displaying that history to the entire world. Some artists even draw graffiti on the wall, which has become a new presence of contemporary art in historical culture (Wolski). Most visitors happily take pictures with the wall. They might still remember that unhappy history, but the new presence offers another impression. This shows that history can be commemorated in diverse ways.

The background of the demolished Berlin Wall is similar to the Beijing city wall in having a complicated political background. Germans thought the Berlin Wall was a barrier against freedom, because it separated the city and made those in the east prisoners; it sliced families apart; and it resulted in the death of those who tried to cross the barrier. Chinese rulers saw the Beijing city wall as a symbol of a feudal society. Some people blindly supported the government; some tried to protect this heritage; and some took the wall bricks away to save the history while the city wall was removed. The Berlin Wall was a physical and political barrier, symbolizing the Cold War conflict between belief in democracy. The Beijing city wall was considered as a conflict between belief in communism. When both cultures pulled down the walls, many were eager to pursue freedom and better lives, without considering the value of historical structures to future

generations. This was limited by the historic era. The only thing people today can do is to preserve the remaining historical structures, and commemorate history with contemporary strategies. Inspired by the remains of the Berlin Wall, this creative project can address design approaches to presenting the Beijing City Wall in a way that has meaning for present-day culture.

2.5.2 York City Wall

York is a historic city in England with great attractions. It offers more miles of intact medieval walls than anywhere else in the country. The Romans first built the city walls in 71 AD, and these survived until the Danish Vikings invaded York in AD 866 (Ashworth). The Vikings buried the Roman walls, expanded the boundary of the city, and built a tall wooden fence. During the 13th and 14th centuries, these fences were replaced with stone structures, but the wood still remains beneath the stonework we see today (“the York City Walls”).

The York City Wall encircles an area of 263 acres (106 hectares) and stretches 2.75 miles (4425 meters). Like the Beijing city wall, the only entrances to York were the four gates, or bars, as they were termed, in the walls. The current York City Wall includes all four of these gates: Bootham Bar, Walmgate Bar, Monk Bar, and Micklegate Bar, plus two remaining smaller gates: Fishergate Bar and Victoria Bar (Ashworth).



Figure 2.8 York's Original Roman Walls (Ashworth)

By the late 18th century, the York City Wall was no longer used for military defenses purposes and had fallen into disrepair. The narrow gateways were also not convenient for modern traffic. All these issues hindered York's expansion and development. "In 1800, the Corporation of York applied for an Act of Parliament to demolish them." This Act was first granted but then met fierce opposition. "By the mid-nineteenth century the Corporation had been forced to back down" ("York City Walls"). However, the opportunity for preservation was missed because some parts of the walls had been demolished. Since then, the walls have been restored and are now maintained for public access, tourism and recreation. People can walk along the top of the walls, to enjoy great views across the city, and even sit down to rest.



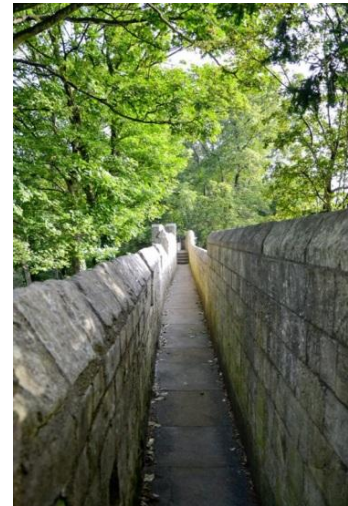
Leisure Space along the York Wall (Daviding)



Access on the Top of the Wall (Davies)



City View from the Wall (Ashworth)



Narrow Access (Ashworth)



Roadway through the Wall (Author)



Stair Access to the Wall (Author)



Bootham Bar—a gate into the city and access up to the wall (History of York)

Figure 2.9 York City Wall Pictures

The York City Wall offers a good example of protecting heritage in works of the past by making minor changes needed for transformation into a great public leisure space. Some modifications have been made to the wall and its surrounding context: promoting its use and accesses, celebrating city views, communicating history, and accommodating today's urban problems like traffic, and circulation. This creative project will learn from this case study and will aim to create comfortable spaces near the Beijing city wall. The design will offer opportunities for people to engage with the wall and to have a sense of ancient times through the historical remnants.

2.5.3 Nanjing City Wall

Nanjing was the capital of China when the Ming Dynasty was first established (AD1368-1644). It is located in the Jiang Su Province of south China. The Nanjing City Wall was begun in 1366, took 21 years to build, and was finished in 1386. Different from most city walls in ancient China, the Nanjing City Wall was built in an irregular shape, not a square or rectangle (Figure 2.10). The original Inner City Wall was 36 kilometers long, which was even longer than the Beijing Inner City Wall. Before it was repaired, 22 kilometers remained. Recently, the government has restored part of the wall to attain a length of 25-26 kilometers. The Nanjing City Wall is 14-18 meters in height and 8-12 meters wide in general. Of the thirteen original gates, only four remain (Zhong).



Figure 2.10 Nanjing City Wall during the Ming Dynasty (Zhong)

With huge rectangular stones as foundation, the Nanjing City Wall was built with large bricks. Now 600 years old, the remaining walls are still solid. The Nanjing government recognizes the city wall as important heritage to protect as part of city development. After several years' repair, the Nanjing City Wall is now functioning as a public park network and attracts numerous residents. For instance, the Moon Lake Park was designed near the moat, with the city wall as background; the Water West Gate Heritage Square offers historical information; and the Han Zhong Men Civic Plaza is a building complex with an historic Wong Cheng and city wall themes.



Figure 2.11 Yi Feng Men (Baidu) Figure 2.12 Nanjing City Wall and Xuanwu Lake (Xu)

Among the current remaining city walls in China, seven are among the most important in the country. Besides the Nanjing City Wall, the Xi'an and Ping Yao city walls also play crucial roles in the history of city walls in China. Similar to Nanjing, Xi'an was once the capital during the Tang Dynasty. With a rectangular shape, the original wall was 13.7 kilometers. The current Xi'an City Wall looks intact and is used as the City Ring Park. Visitors can ride bicycles along the top of the wall, which is a unique experience in China. However, seven kilometers of this wall were actually rebuilt in the 1980s, so some experts

平遥古城游览景点分布图

1. 晋商博物馆
2. 古民居博览苑
3. 县衙
4. 鼓楼
5. 南大街
6. 内城墙遗址
7. 西大街
8. 城隍庙
9. 文庙
10. 日升昌
11. 市楼
12. 清虚观
13. 太和门
14. 县衙
15. 城隍庙
16. 文庙
17. 日升昌
18. 市楼
19. 清虚观



Figure 2.13 Pingyao City Wall (Nipic)

Different from Xi'an and Ping Yao, the Nanjing City Wall is incomplete. However, considering the use of the city wall, Nanjing offers a good example of how to connect historical structures and modern development. It has fewer traffic conflicts than Xi'an and activates the use of the wall better than Ping Yao. Thus, the Nanjing City Wall supplies a successful image as reference for this creative project.

2.6 Conclusion

Drawing from the program, three main design strategies inform this creative project: historical expressions, people's leisure preferences in China, and applications of Chinese folk custom patterns. Historical expression is the most important aspect of this project. In her article "Natural and Cultural Resources," Boyle states that the U.S. National Park Service has defined four general types of cultural landscapes, and "historical sites are significant for their associations with important events, activities, and persons" (152). Countless stories about Beijing City Wall have been happening throughout China's vast history, giving meaning to the site and landscape design. The project's design will display those significant events, stories and activities through diverse spaces based on heritage protection.

Through exploring the theoretical background, design principles are drawn from historic preservation standards and regulations in China, the United States, and around the world. International charters offer two basic ideas: integrated conservation and respect for

original historic fabrics. Chinese regulations supply specific explanations for how to deal with basic preservation in China. U.S. Standards complement how to deal with new structures in historical sites. The theoretical research provides resources discussing these three aspects and informing applicable design principles for this creative project. Historic preservation is the main design purpose. The open spaces will also address Beijing residents' outdoor leisure preferences. Cultural background shapes people's behaviors and thoughts, so with different regions and diverse cultural influences, people have different preferences in parks, gardens, and public open spaces. This project addresses Chinese leisure preferences to create lively public open spaces with diverse experiences. For instance, some design spaces reflect the Chinese pastime of airing pet birds, which is an activity taking birds out into public spaces and hanging their cages in trees. To better display this historical site, traditional folk art patterns will be used in detail design through the dynasty timeline. Besides this research, three precedents from different countries supply diverse cultural wall references for this creative project.

The destruction of Beijing's ancient city wall is a great loss in Chinese heritage preservation, but also for the world. The structure of the ancient city could reflect the lifestyles in history, represent the historic urban form, and reveal past living habits. Historical restoration is closely bound up with the history of a site. Excellent presence of heritage landscape would serve people today, but also educate future generations. Recovering the memory of the city wall will help restore the old city pattern and its heritage as a vivid presence in Beijing's urban center. It will make the recollection of a demolished heritage visible, educate people about the importance of heritage preservation,

and contribute to the quality of people's lives. Thus, studying the presence of the demolished city wall in Beijing's urban center is significant in contemporary urban China.

CHAPTER 3. BACKGROUND

3.1 Introduction of Beijing City

In the feudal society, those in power pursued Fengshui as the main principle to city construction. Fengshui—an ancient Chinese learning to choose a suitable place—is mainly used to select the palace, village location, the cemetery construction etc. Thorough Fengshui system originated during the Warring States period. Ancient Chinese people believed that following Fengshui could offer them a lucky life and future. From large scaled city planning to small scaled house construction, Fengshui played an important role in ancient history. The design of the emperors' residence, the Forbidden City, was the most structured masterpiece of Fengshui standards. For instance, a good city location should stand in front of water with mountains behind. When Beijing was first selected as China's capital city, the royal court considered several Fengshui principles. Figure 3.2 shows an aerial view of Beijing, and how the city is surrounded by mountains in the west, north and northeast, and the great plain in the southeast tilts to the Po-Hai Sea. Mountains on three sides form a semicircle unfolding bend.² The southeast plain is called the Beijing small plain (Figure 3.1), and the bend is known as the “Beijing Bend.” From the perspective of Fengshui, Beijing's terrain shows a magnificent situation, which prompted the emperor to

² Beijing's geography is circled by mountains of three sides and open to the world ocean, which is described as unfolding bend.

select this plain as the capital.

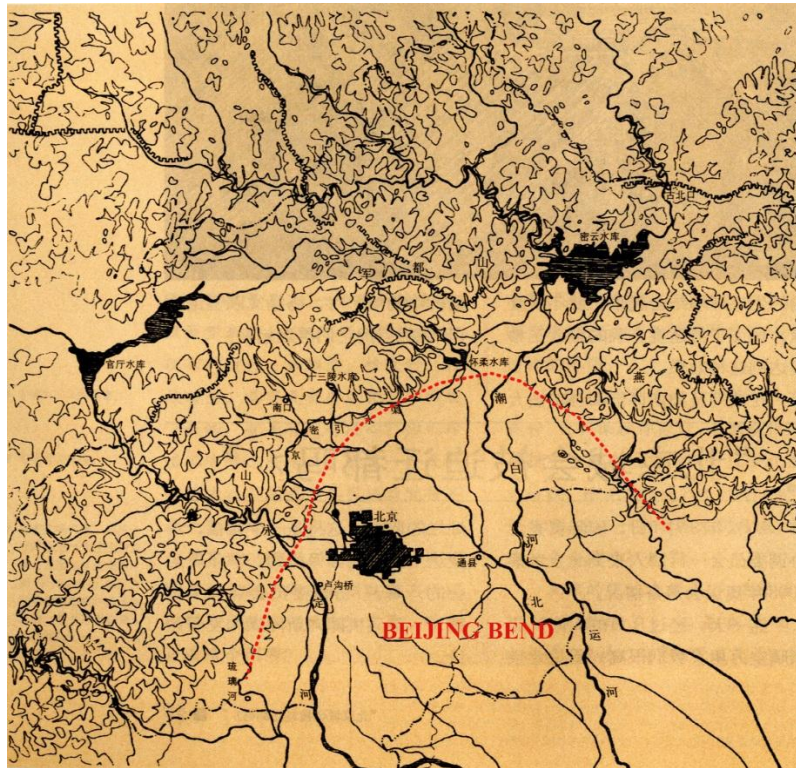


Figure 3.1 Beijing Regional Topographic Map (Wang, 28)



Figure 3.2 Model of Beijing's Terrain at Beijing Planning Exhibition Hall (Author)

3.1.1 Ancient Beijing City (before 1949)

As a city, Beijing has had 3,000 years of history. When it was built as the capital 800 years ago, the emperors started to carefully design the city wall as the city boundary.

During the long history, the emperors relocated their power centers several times. Starting from a strict square form, the city was gradually built to a convex³ "凸" (Chinese word, figure 3.4) structure before a shift in the late Ming Dynasty (Figure 3.3).

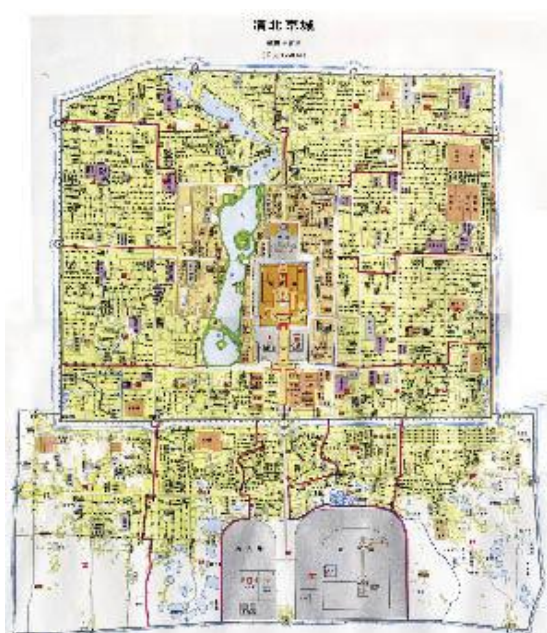


Figure 3.3 Qing Dynasty Beijing Map (Tszyk) Figure 3.4 Chinese Word “凸” (Shufa)

3.1.1.1 Ancient North-South Central Axis

In ancient times, building heights showed rigorous social hierarchies descending from the imperial quarters, prestigious residences, and common dwellings. Old Beijing was

³ The Chinese word “凸” is used to represent the shape of Old Beijing formed by the city wall, which was described as “convex.”

rigorously planned with levels of hierarchy. Higher buildings showcase higher status. The highest buildings were usually located in the middle (Figure 3.5). The Forbidden City is in the urban center, surrounded by the Inner City on the north and the Outer City on the south. Old Beijing was symmetrically structured with a north-south axis (Figure 3.6), along which the central line of all the important buildings were all designed with rigorous rules and hierarchies (Figure 3.7). With a total length of 7.8 kilometers, this ancient axis starts from the Bell Tower and the Drum Tower (Figure 3.8) in the north, and ends at Yong Ding Men Gate in the south. This axis established the unique magnificent order of Old Beijing, and was used to lay out the city's main streets. Towers with different heights and functions stood on the city wall in precise levels of hierarchy. The irregular form of the North Sea⁴ and lakes, the tall towers and temples, heightened perception of the rules by contrast (Liang, "Beijing"). Old Beijing was a wonderfully integrated masterpiece which gathered different knowledge from the wisest people.

⁴ The North Sea is a natural water system in the northern part of Beijing, and was an important reason for Beijing settlement.

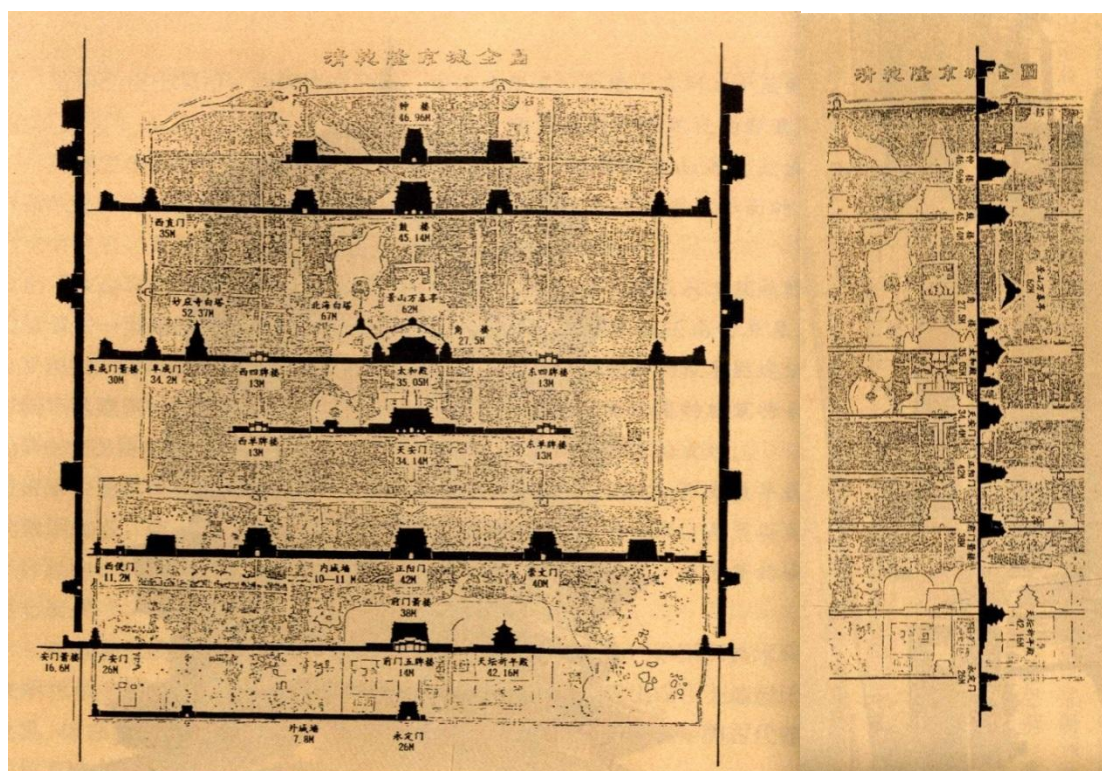


Figure 3.5 Building Heights in Old Beijing and Skylines along the N-S Central Axis (Wang, 146)

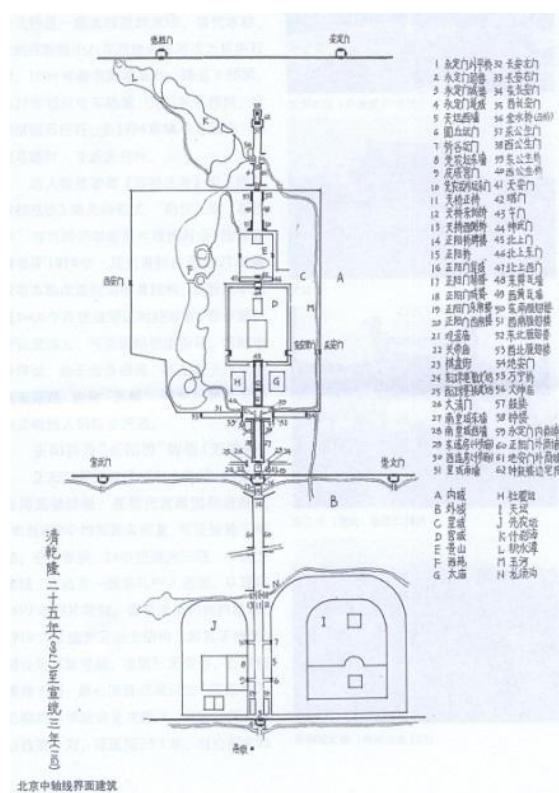


Figure 3.6 Central Axes in Qing Dynasty (Bjww)



Figure 3.7 Structures along the Axes (China Plan Net)



Figure 3.8 Bell and Drum Tower in the Republic of China and Northern Axis (Wang, 55)

3.1.1.2 The Traditional Hutong and Courtyard

A Hutong is a traditional neighborhood with lines of courtyard residences—siheyuan—and narrow streets and alleyways commonly associated with Old Beijing. Neighborhoods grew through joining courtyards to form larger Hutong, and joining Hutong in the traditional type of street pattern that dates from ancient Chinese settlements.

Ancient people pursued Fengshui when they built houses. Southern orientation toward the sun was considered “Yang” and north was “Yin.” A house with satisfactory Fengshui should face south, and the main door should open to the south. Consequently, lines of courtyards gradually formed straight alleys. East-west and north-south streets were most typically used in urban design. This pattern was considered legitimate, the correct way, and oblique streets were uncommon.

Hutong—as the most distinctive symbol—carries Beijing’s folk culture. Started from

Yuan Dynasty (AD 1206-1368), Beijing Hutong has an 800-year history. Resources state that Ming Beijing had approximately 1170 Hutong; until 1944, the number increased to 3200. With rapid urban construction, parts of Hutong have been destroyed or pulled down. Only about 1000 Hutong still remain in current Beijing (Communist Youth League).

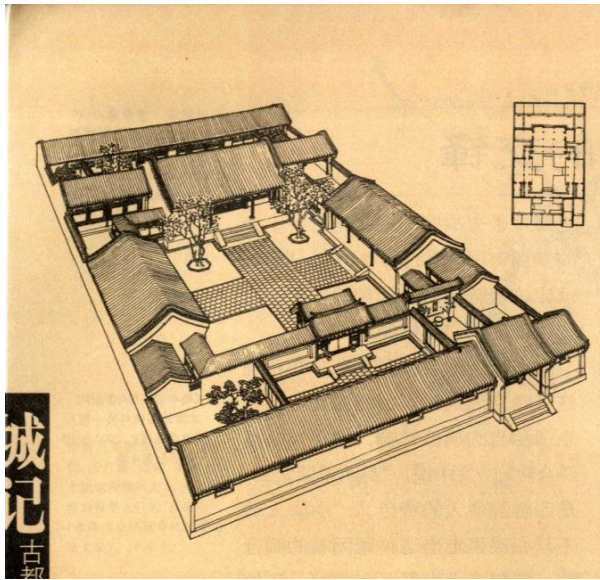


Figure 3.9 Traditional Courtyard (Wang, 16)



Figure 3.10 Hutong (Hutong Culture)

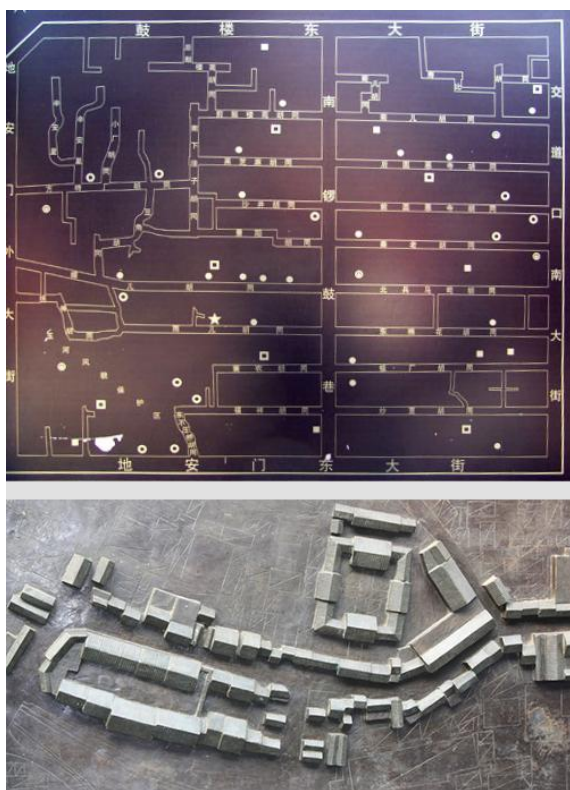


Figure 3.11 Current Nanluoguxiang Hutong

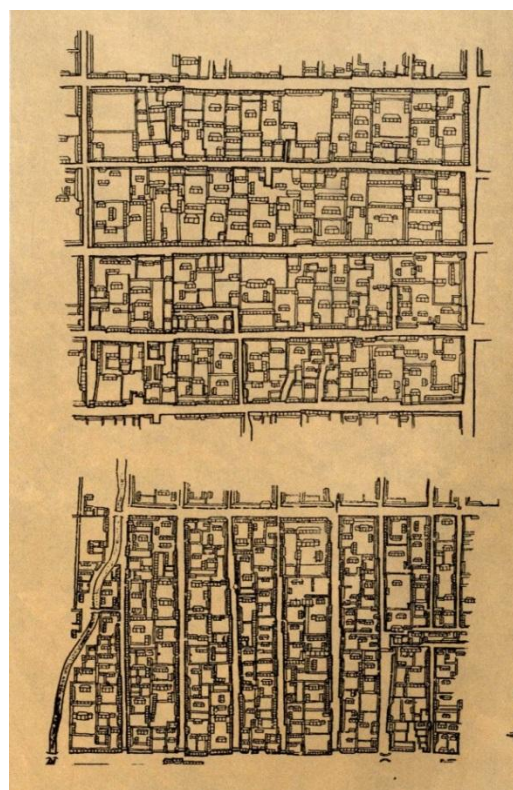


Figure 3.12 Qing Neighborhood (Wang 17)



Figure 3.13 Hutong in Old Beijing City (Old Beijing City postcards)

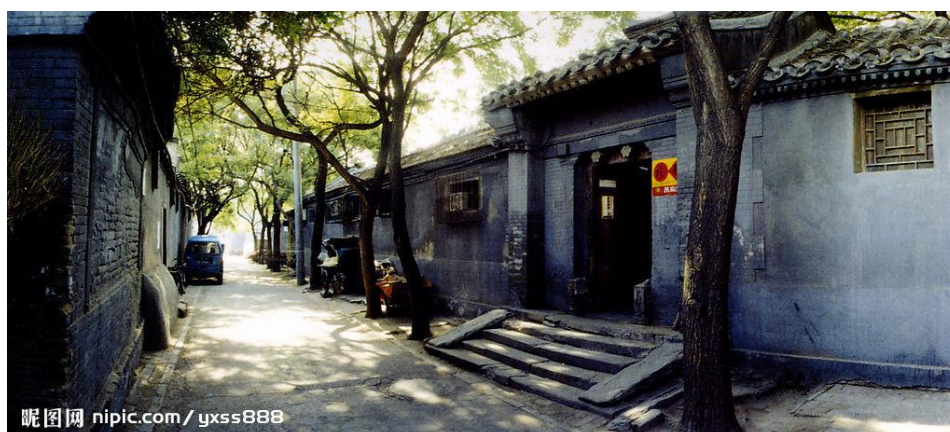


Figure 3.14 Current Beijing Hutong

In ancient China, social hierarchy was determined by people's occupations. Hand-crafters, artists, and artisans were considered to be lower-status people. Consequently, urban planning, architecture, or engineering were not regarded as serious subjects. Few records of those skills were left. Little progress was made for the study and development of these industries. Compared with other European countries, the study of urban planning in China started much later as a specific discipline. All these made the historical remains more precious. Thus, as a trace of Old Beijing, the city wall has unique significance in showing the form of old city structures.

3.1.2 Modern Beijing City (after 1949)

When the new People's Republic of China was established, Beijing embarked on a period of modern development. In the 1980s, Xiaoping Deng—one of the main leaders of China—proposed a policy called Reform and Opening-up, followed by rapid modernization. Compared to decades ago, Beijing has had experienced great changes in population size, economic indicators and scale of the land use. With 16,410 square kilometers and 20.186 million population (2011 data), Beijing is now divided into 11 counties (Figure 3.15). These counties are assorted to three hierarchies based on development consideration. Among these, five counties away from the urban center belong to urban development area: Huai Rou, Yan Qing, Mi Yun, Ping Gu, Men Tou Gou; five counties around the urban center are considered as ecological conservation area: Chang

Ping, Shun Yi, Tong Zhou, Da Xing, Fang Shan; the central county—considered as the city core—is divided into 6 districts: Western City (W), Eastern City (E), Hai Dian District, Chao Yang District, Shi Jing Shan District, and Feng Tai District. Eastern and Western City are approximately the historical city area (city wall boundary), considered as Beijing's functional core. With the most rapid urbanization, the other four districts around the core are considered as urban functional expand area.

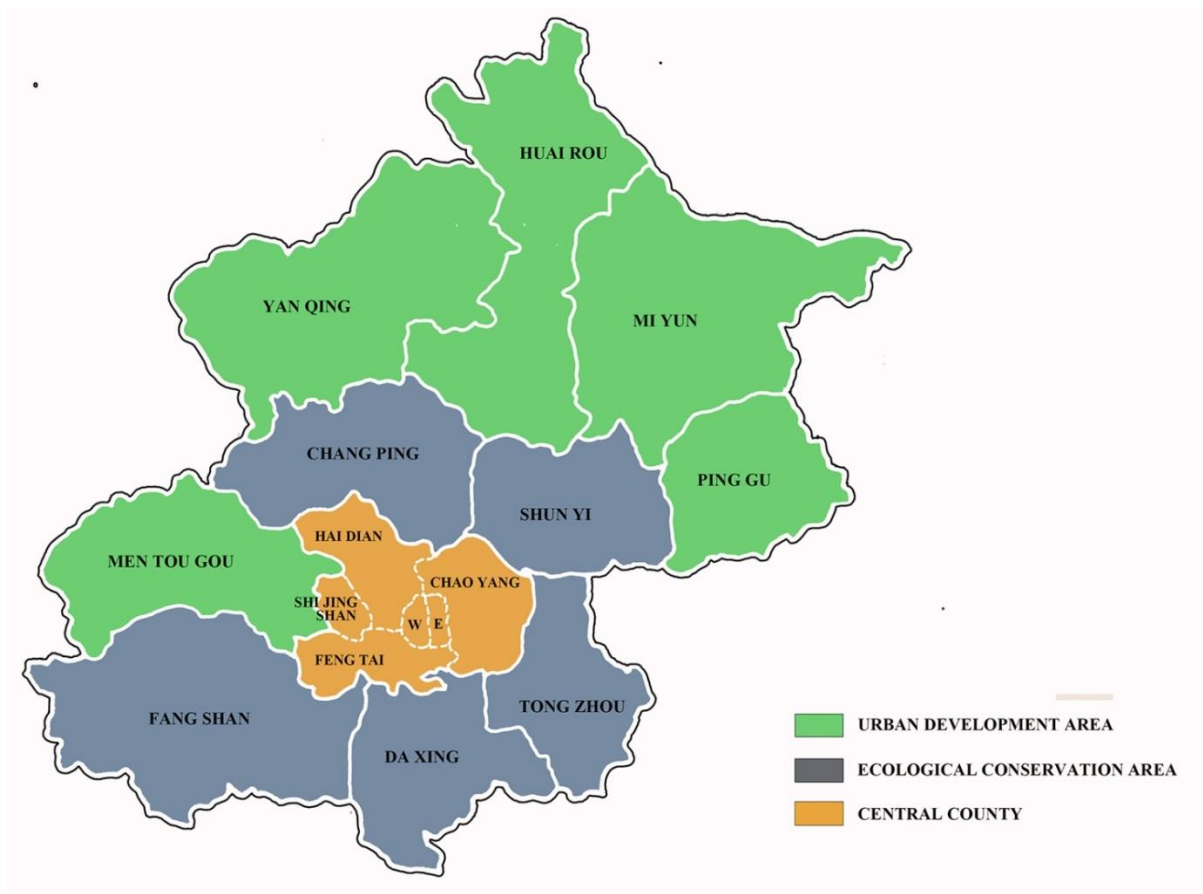
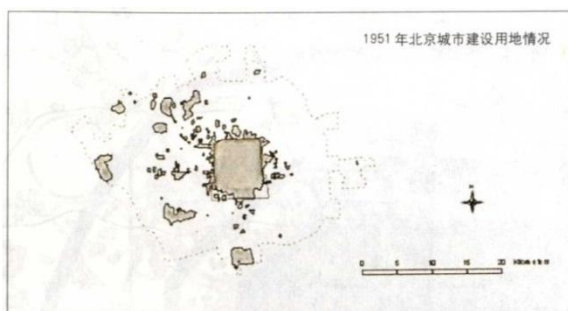
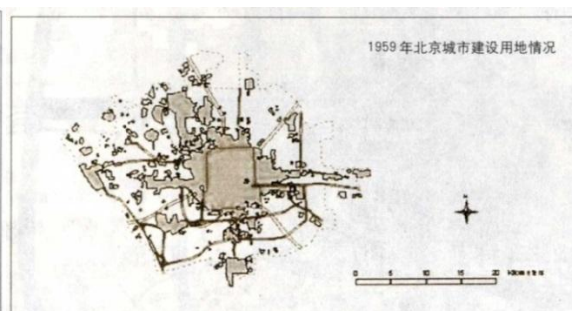


Figure 3.15 Counties and Districts of Beijing

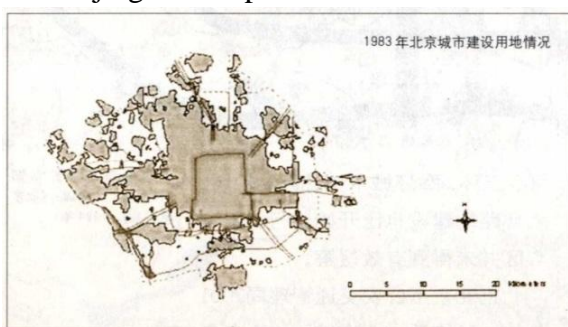
In the early 1950s, Beijing had only one circle road, which was located along the exterior of the city wall. With few growth of population, Old Beijing expanded slowly. The city wall is the only boundary of Beijing, controlling most residents inside the wall. After 1949, amounts of people swarmed into Beijing, with the highly hope of freedom and new lives. More and more populations have grown with the development of the new country. Scholars describe Beijing's planning is like "making a pie." As the "pie" has grown increasingly bigger, Beijing has developed a pattern of circle roads as the main infrastructure of vehicular transportation. Figure 3.16 shows Beijing's development pattern dating from the 1950s. Right now, the city has six circle roads (Ring Roads) and surrounding new districts (Figure 3.17). The unlimited development and fast growth of the population has put the quality of life in this city under tremendous pressure.



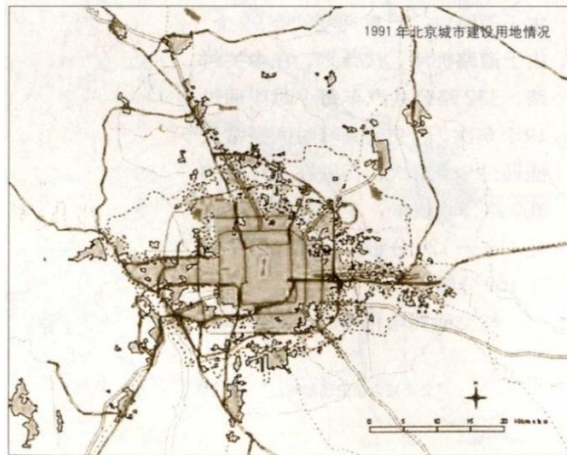
Beijing Developed Land in 1951



Beijing Developed Land in 1959



Beijing Developed Land in 1983



Beijing Developed Land in 1991



Beijing Developed Land in 2000

Figure 3.16 Development Patterns in Beijing from the 1950s (Wang, 30)

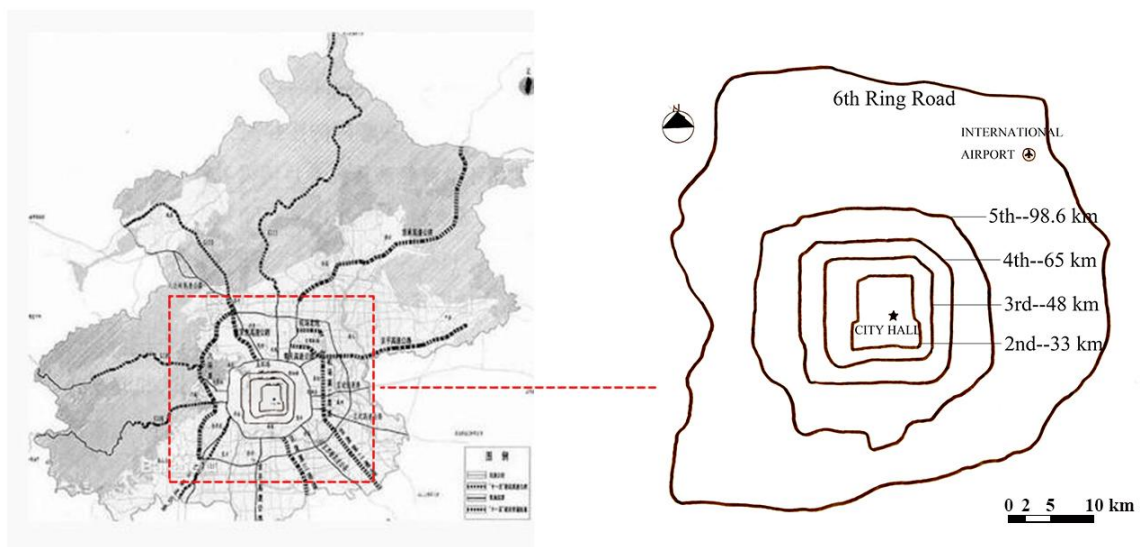


Figure 3.17 Beijing's Six Ring Roads and Perimeter Diagram (Lvren)

The current Beijing City is much bigger than Old Beijing in ancient times. The government has extended the north-south central axis to accommodate the development of modern society. The new axis starts from the northern Beijing Olympic Park and extends to

air pollution. This creative project will address parts of these problems, specifically with green spaces with multiple outdoor activity opportunities.

3.2 Ancient Beijing City Wall

3.2.1 Introduction of the City Wall

In ancient China, the city wall was constructed of clay, bricks, stones and other materials. It first appeared in the agrarian age in response to threats of wars. Gradually, as with other cities in China and elsewhere, the city wall marked the boundary of a town or a city and served as defense and protection.

A whole formal city wall was a system of walls, gates, towers, and moats. The general width of the tops of the walls is 16-20 meters, and the height is 10-12 meters. The gates were the only entrance into the city, controlling transportation between inside and outside. The integrated system of a city gate included gate towers, arrow towers, Wong Cheng, and lock towers (Figure 3.19); some would also include sluiceways and temples. For instance, two temples were built inside Wong Cheng of Zheng Yang Men—the main gate of the Inner City—during the Ming and Qing Dynasty.

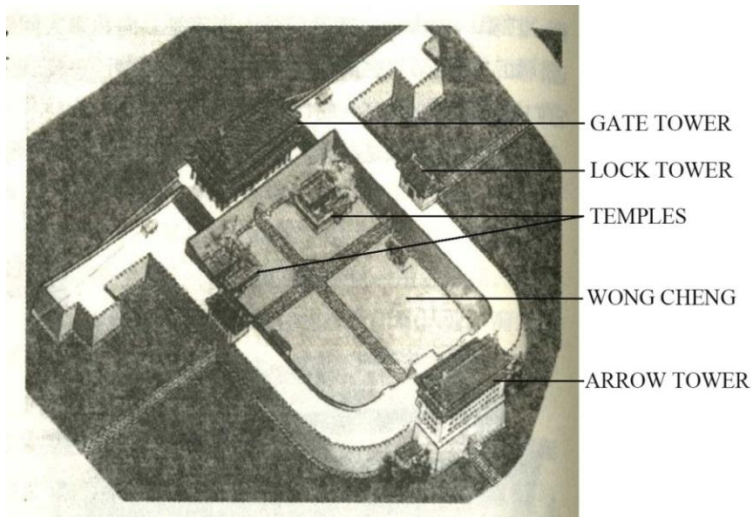


Figure 3.19 Zheng Yang Men Gate (Gao, 72)

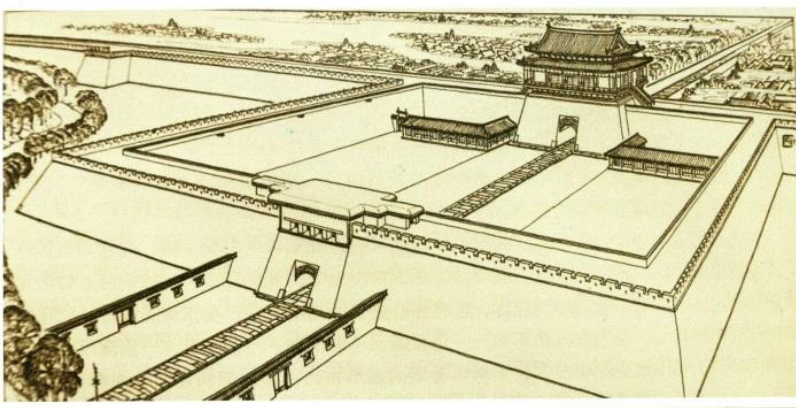


Figure 3.20 Yuan Dadu Wong Cheng (BMACH, 133)



Figure 3.21 Xizhimen Lock Tower (Yang and Lu, 22)

Wong Cheng, also named “Moon City,” was a special enclosure surrounded by the gate tower, an arrow tower and the city walls. It was a military defense construction common in ancient China, and was frequently built with city walls (Luo, Zhao, & Gu). The gate tower was the main tower, and the arrow tower was usually built as a projection from it. Besides these two kinds of towers, there were also other common types: the corner tower and the watch tower.



Figure 3.22 Watch Tower of Xi'an City Wall (Jamguo)



Figure 3.23 Corner Tower of the Forbidden City (Nipic)

Corner towers were fortifications at the corners of the walls to strengthen the defense at these critical locations (Figure 3.22). In present-day Beijing, only one corner tower remains from the Ming Dynasty Inner City walls, and is a museum open to the public. Watch towers were usually located on the “Dun Tai” along the wall, offering rest and storage rooms for soldiers on guard (Figure 3.21). Dun Tai, also named “Ma Mian,” which means the *horse face*, was a kind of projecting rampart extending out from the main wall. To improve defense, these were constructed about every 80 meters along the wall to provide soldiers broad views of enemies trying to climb up the wall to attack the city.

Besides towers and gates, city walls included the most important structures, mainly including Dun Tai, crenels, parapets, horse-ramps, and other features. Crenels are the outside defensive battlement on the wall, usually 2 meters in height and at half-meter intervals, for sentries on watch, attacking, or protecting themselves and the city. Parapets are the low interior walls, about 1.2 meters in height along the top of the wall, mainly to prevent soldiers from slipping (Figure 3.24). Horse-ramps were a gradual-sloped access for war-horses and pack animal bringing supplies up to the wall. Atop the wall (16-20 meters

wide) often stood additional towers, platforms, duty rooms, flag posts, iron cannons etc.

Historic pictures show Dun Tai were the most visible structures of the wall, that also distinguished Chinese city walls from those of other countries.

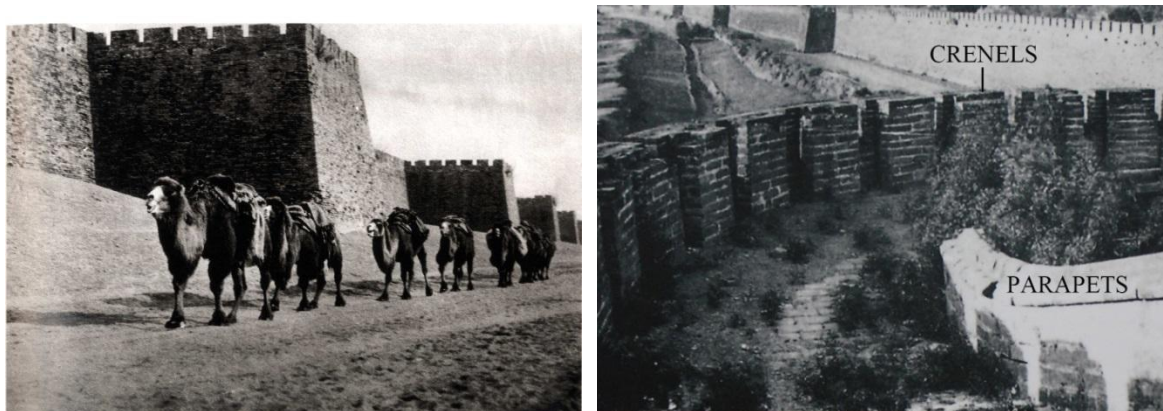


Figure 3.24 Historic Photographs of Dun Tai and of the Structure of Parapets and Crenels (Yang and Lu, 11)



Figure 3.25 Horse Ramp and Top of the Wall (De Sheng Men Arrow Tower Museum)



Figure 3.26 Beijing's Historical City Wall and Moat (Vanished Historical Sites postcards)



Figure 3.27 People Chisel and Store Ice from Frozen Moat to Use in Summer (Vanished postcard)

As another part of the defense system, moats 30 to 50 meters in width were usually built around the outside of the city wall, for military purposes, and for the city water supply and drainage. Figure 3.27 shows people from Qing Dynasty (AD 1616-1911) chiseling ice from the frozen moat to be stored for use in the summer. Huge river bridges crossed the moat, accessing the city gates which were the main circulation points in and out of the city. Usually these were built as drawbridges. When enemies attacked the city, drawbridges would be raised and disconnected to prevent people from entering the city. All these structures and equipment were designed to protect the city and comprised a strong and integrated military system for city defense (Luo, Zhao, & Gu).

3.2.2 Beijing's City Wall through Successive Dynasties

About 3,000 years ago, Beijing grew from a small town to a city. During the long history of its development, Beijing gradually expanded to become a large city and the nation's capital during the Jin, Yuan, Ming, and Qing dynasties. During this lengthy period of approximately 800 years, the emperors relocated their power centers several times within this area. As a consequence, the city wall structures were relocated which is reflected in historic urban patterns. Names for the city changed as well (Table 3.1).

Starting with the Liao Dynasty (AD938--1153), the city wall structure was a simple square in southwest of the current Beijing city center. During the Jin Dynasty (AD1153--1215), the emperor expanded the city to a bigger square based on the urban form of Jin Dynasty. The history of the city wall remnants that can be seen today can be traced back to 800 years ago. With construction beginning in the Yuan Dynasty (AD1271--1368), and finishing in the Ming Dynasty (AD1368--1644), the city wall was unchanged during the Qing Dynasty (AD1644--1911) and the Republic of China (AD1912--1949). During the 1950s, the city walls were gradually pulled down by the new government of the People's Republic of China.

Table 3.1 Period and Names of Dynasties (Drawn from De Sheng Men Arrow Tower Museum)

DYNASTY	LIAO	JIN	YUAN	MING	QING	THE REPUBLIC OF CHINA	THE PEOPLE'S REPUBLIC OF CHINA
PERIOD (AD)	938--1153	1153--1215	1267--1368	1368--1644	1644--1911	1912--1949	1949--NOW
CITY NAME	NANJING	ZHONGDU	DADU	BEIJING	BEIJING	PEKING	BEIJING
CAPITAL OR NOT	NO	YES	YES	YES	YES	NO	YES

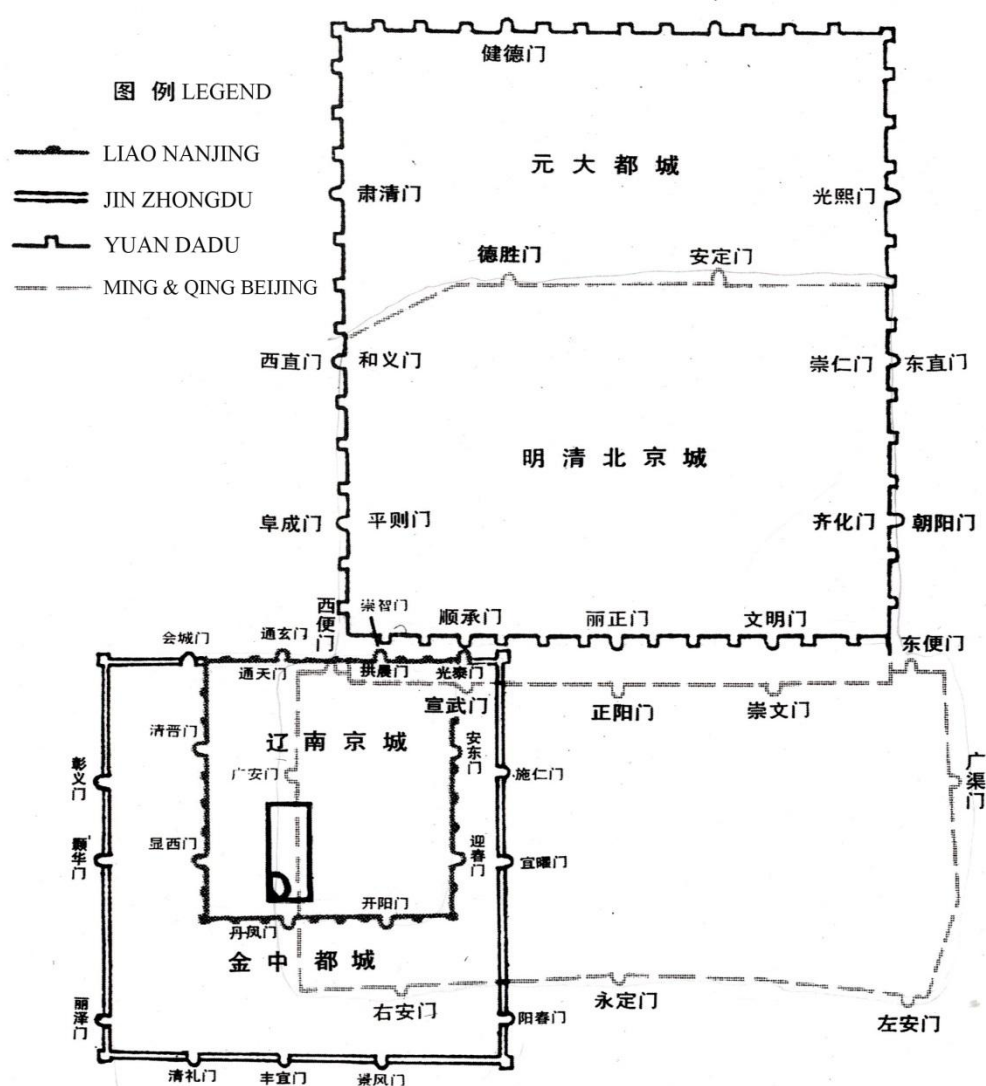


Figure 3.28 Diagram of the Changing City Walls from the Liao to the Qing Dynasty (Lu, 38)

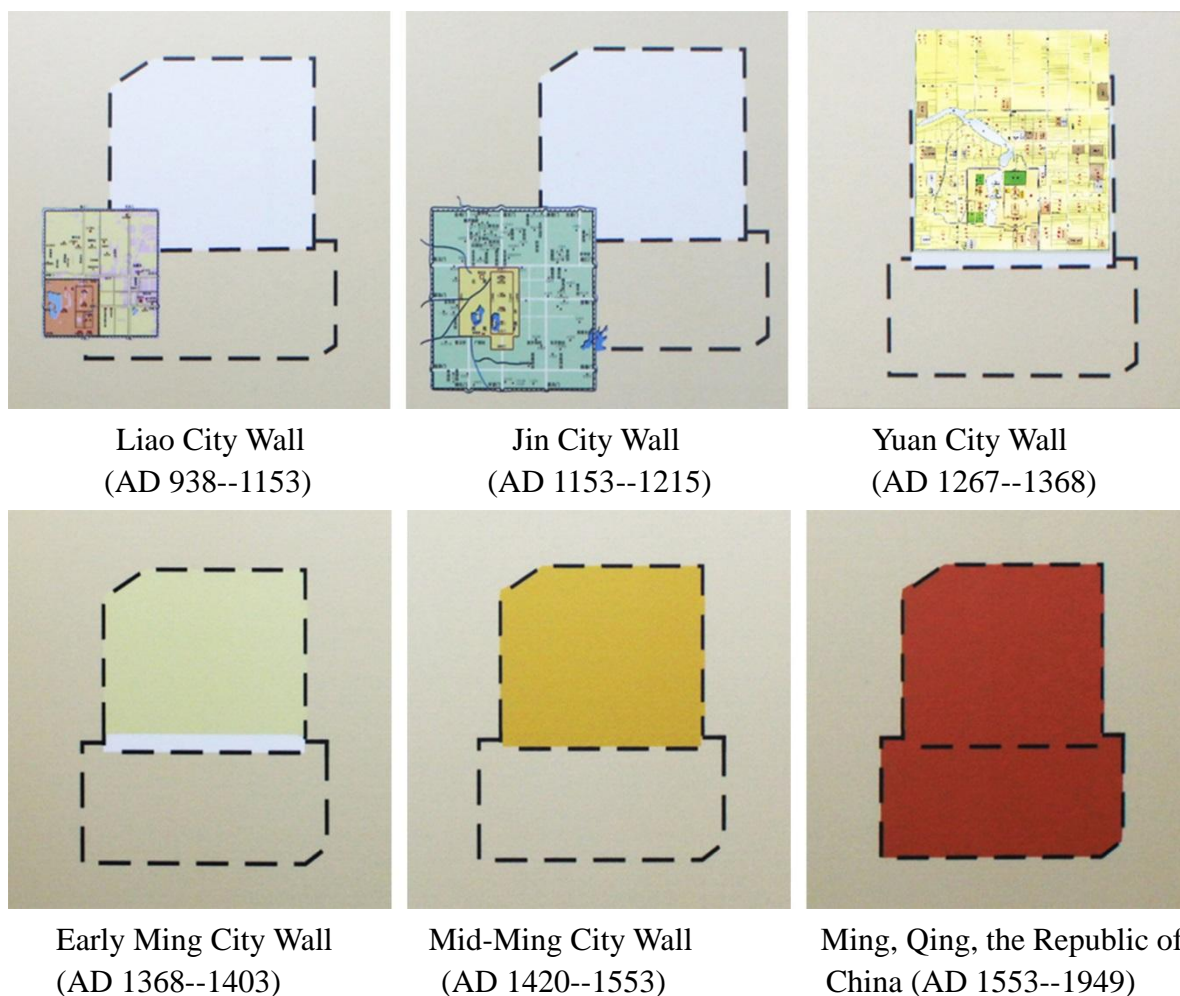


Figure 3.29 Locations of the City Wall during Successive Dynasties, Compared with the Qing Dynasty (Drawn from De Sheng Men Arrow Tower Museum)

3.2.2.1 Jin Dynasty (AD 1153—1215)

During the Liao Dynasty (AD 907-1125), Beijing was named Nanjing, and the capital was located in current Liaoning Province. None of the old city walls from this period remain. During the Jin Dynasty (AD 1153-1215), emperors moved the capital to Beijing and renamed it “Zhongdu.” At the same time, Zhongdu city was extended south and enlarged, forming a larger square based on the foundation of the former Liao Nanjing City (Figure 3.28).

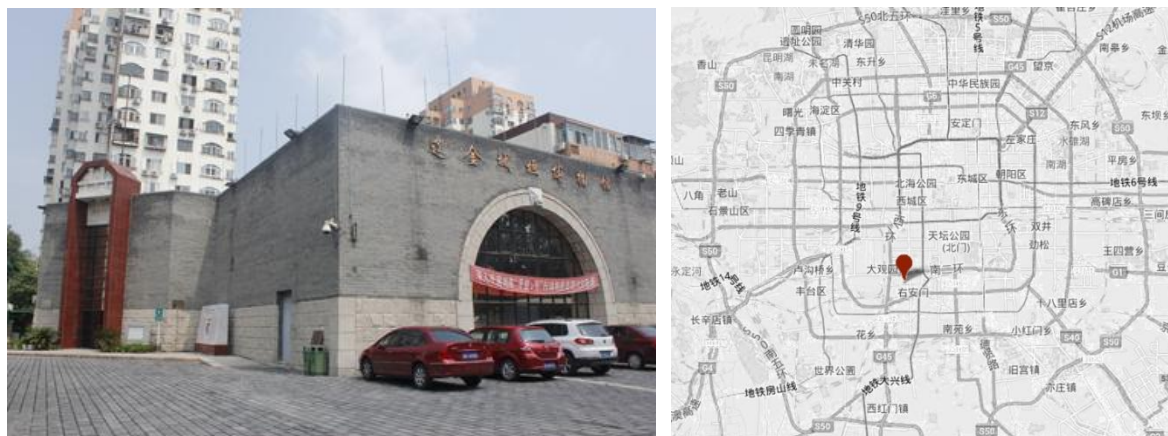


Figure 3.30 Beijing Liao and Jin City Wall Museum and its Location (Author)

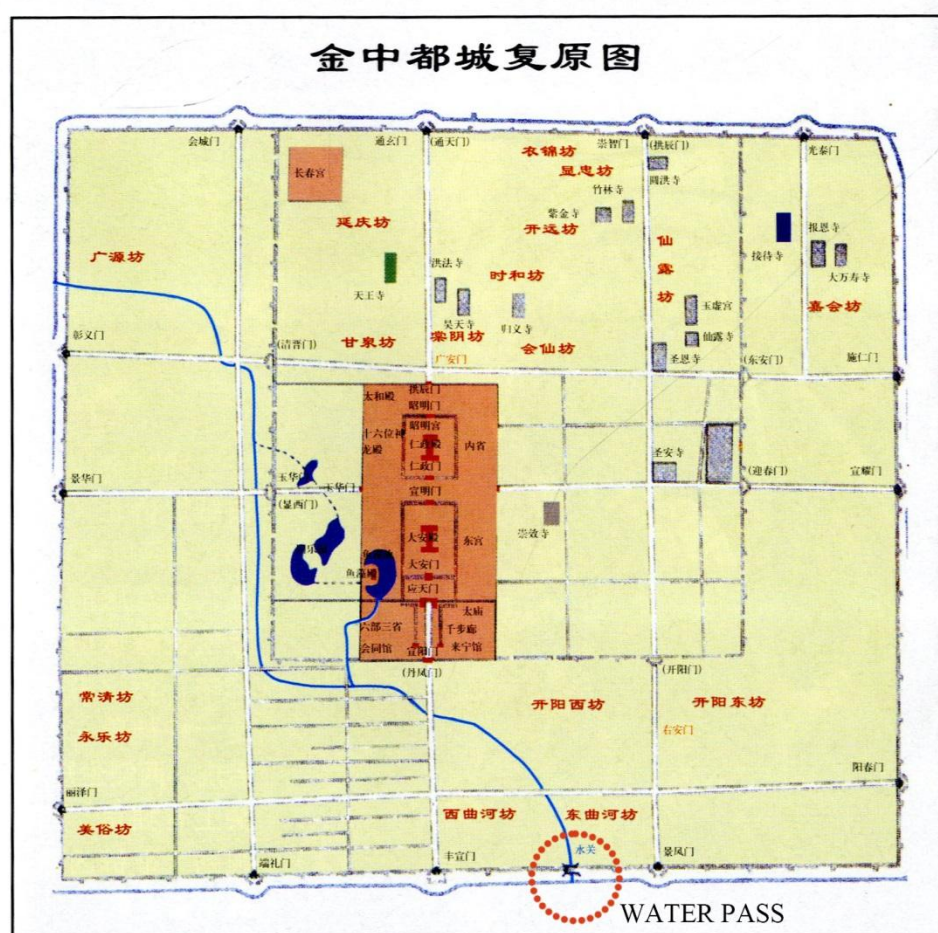


Figure 3.31 A Restored Jin Zhongdu Map and Historic Water Pass Location (Lu)

In 1990 when the Beijing Municipal Bureau of Parks built their dormitories, construction workers found an underground level of the city wall that dates from the Jin Dynasty in the southwest of central Beijing (Figure 3.30). This is the earliest city wall structure discovery. Studied by archaeologists, this base structure was the foundation of a sluice gate, built under the south city gate (Lu, Y., 1). As the biggest water-pass in the ancient capitals of China, the Jin Zhong Du Water Pass is an excellent example of the early manmade water systems. It also demonstrates that one of the water systems inside the city once ran from northwest to south and passed the southern city wall before entering the city moat. In 1995, Beijing Liao and Jin City Wall Museum was constructed above this underground heritage and now is free and open to the public.



Figure 3.32 The Water Pass Foundation Remnants (Liao and Jin City Wall Museum)

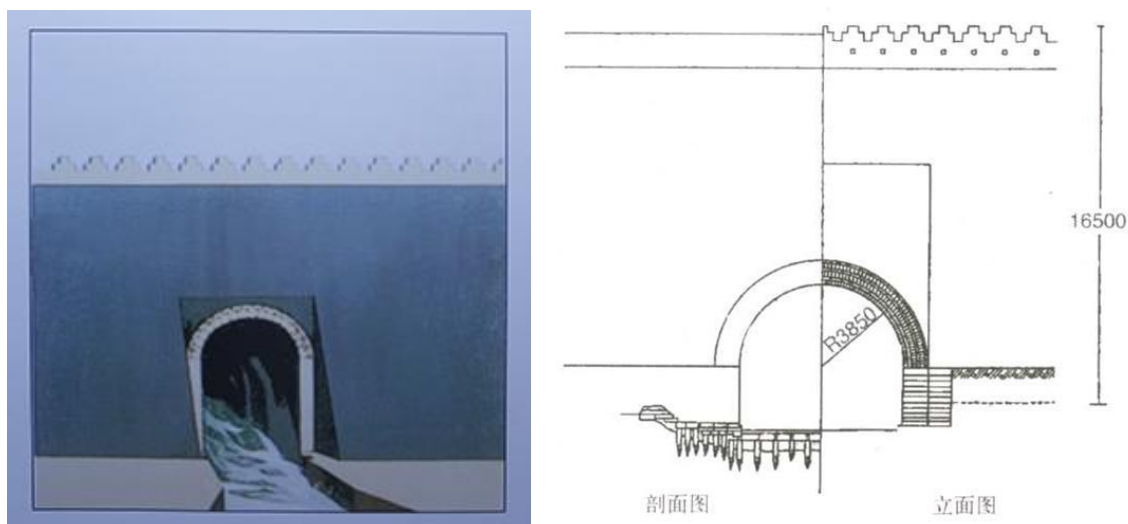


Figure 3.33 Restored Water Pass Structure (Liao and Jin City Wall Museum)

3.2.2.2 Yuan Dynasty (AD 1206-1368)

The Yuan Dynasty was built by those of Mongol nationality, famously named the “Nation on the horseback.” The first emperor Genghis Khan, a Warlord, was an aggressive leader, attacking other countries and extending his territories. Unified for the first time, the vast territory included today’s Outer Mongolia, most of current China, and Siberian southern regions of Russia. In 1264, the fifth emperor of the Yuan Dynasty—Kublai Khan—first moved the capital from Shangdu (today’s Duolun County in Inner Mongolia) to Dadu (Jin Zhongdu, today’s Beijing) for better control of the immense domain. The Yuan Dynasty capital was moved twice, with Beijing being the second location.

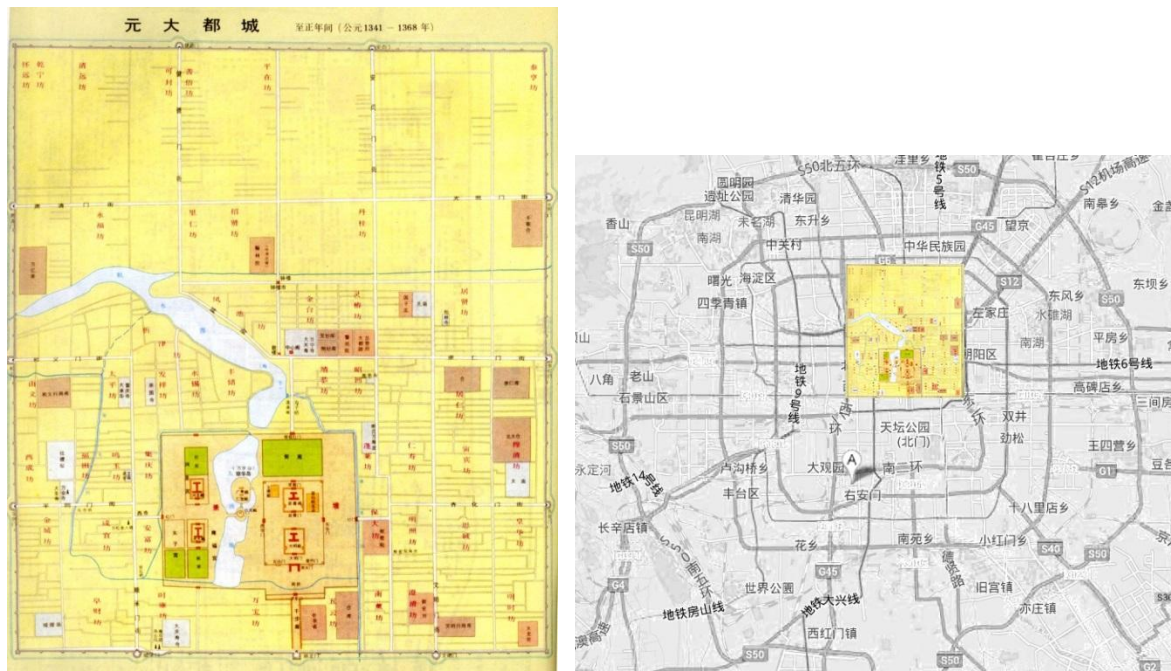


Figure 3.34 Yuan Dadu Northern City Map and its Location in Current Beijing (Wang, 40)

Due to lack of water, the Yuan Dynasty abandoned the old site of Jin Zhongdu, and moved the city to the north. The original Zhongdu area was considered as Southern City, and the new north area was called Northern City, which was the earliest urban center of Beijing City (Figure 3.28 and 3.29). The dynasty named its new capital “Dadu.” Gaoliang River and Jishui Pond were the main water sources for the Dadu Northern City. A new canal was excavated between the Northern City and Southern City to supply water and increase transportation. The plan of the Northern City appeared as a rectangle, designed with precise east-west and north-south streets. Hutong was gradually formed during this time.

Due to rich water sources, presence of powerful institutions, and central palaces, most people moved to Dadu Northern City, and the Southern City was gradually abandoned. Consequently, people usually regarded the Northern City as the capital Dadu, and ignored

the Southern City (Figure 3.34). Today, fragments of northern and western city walls of the Northern City still remain, and are commemorated as a linear public park—Yuan Dadu Earthen Wall Relic Park. As evidence of the glorious past of the Yuan Dynasty, these remaining earthen walls are silent sources of historical stories for people of the modern era.

3.2.2.3 Ming Dynasty (AD 1368-1644)

In 1368, Ming General Xuda successfully attacked Yuan Dadu. Since the Yuan emperor fled without a fight, the city remained intact without any damage. However, the city was too large and not conducive to the defense. General Xuda moved the northern wall 2.8 kilometers to the south, and laid clay bricks over the older earthen Yuan city walls to improve defensive capabilities. At the same time, the name of Beijing was changed from Dadu to Peking. The first capital of the Ming Dynasty was not Peking. In 1403 of the Ming Dynasty, the Yongle Emperor Zhu Di changed the name of Peking to Beijing, and in 1406, he issued an edict to move the capital to Beijing. Palaces were built and city walls were repaired. The Forbidden City was constructed, and at the same time, the southern city walls were moved about 800 meters further south. Thus, the Ming city wall was built based on the Yuan Dynasty city wall.

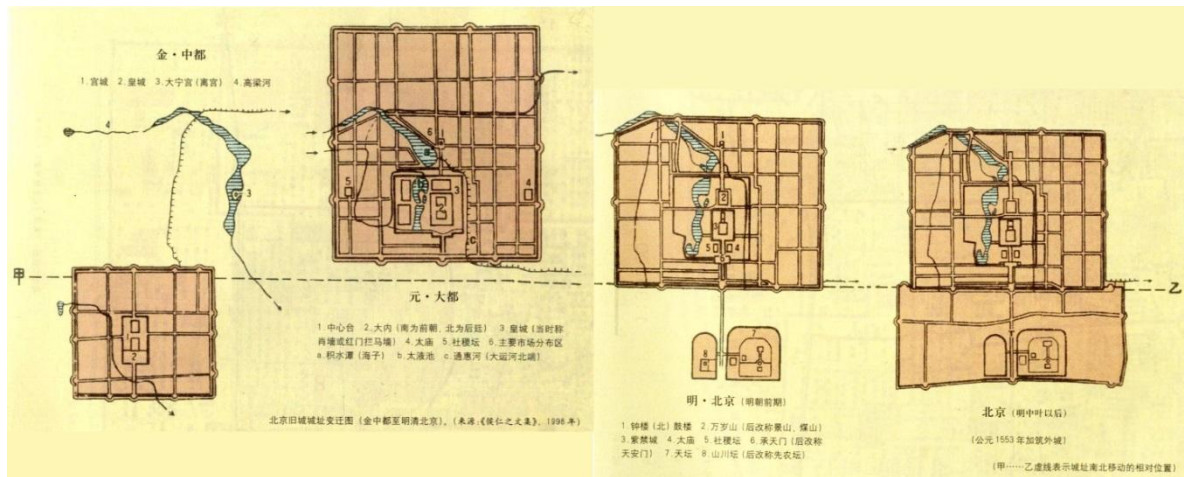


Figure 3.35 Transition Maps of Old Beijing City Wall (Wang, 40)

From 1436 to 1445, Ming Emperor Yingzong repaired and built up the city wall system: laying bricks over all the older earthen city walls; constructing city towers, arrow towers, and Wong Cheng for nine gates; building corner towers on the four corner areas of the city wall; locating archways out of each gate; changing the wooden bridges over the moat to stone ones; and adding sluices under bridges. After the repair project, the 24-kilometer city wall was an extremely solid defense system for the Inner City. In 1476, to prevent from Mongolian invasions, the idea of constructing an Outer City, with its own walls, was proposed. In 1553, Ming Dynasty rulers started to build the Outer City wall, south of the Inner City. The original plan was to build a larger rectangular city wall out of the Inner City. However, due to lack of funds, this project had to be terminated after finishing the southern wall. Two wall sections were built to connect the southern wall and the Inner City. Finally, the Ming city wall system was completed with a convex “凸”(Chinese)” shape. This structure remained for 400 years until the wall was pulled down in the 1950s.

In ancient China, city walls were typically the urban boundaries. Some large cities

might contain smaller cities inside with their own walls and moats, similar to the Forbidden City in Beijing. The rebuilt Beijing city walls consisted of quadruple layers: the Forbidden City, the Imperial Palace, the Inner City and the Outer City (Figure 3.36). The Inner City Wall had eleven gates, and the Outer City, seven gates. Diverse names represented the gates special functions. For instance, Xi Zhi Men (Figure 3.37)—the northwest gate of the Inner City—once was called the “Water Gate,” built especially for the imperial water carts used to ship spring water during the Ming and Qing dynasties. Emperors visited the Summer Palace and the Old Summer Palace through this gate. Chong Wen Men, located in the southeast of the Inner City, was called the “Tax Gate” due to the nearby taxation department. Xuan Wu Men was called the “Death Gate,” since prisoners to be executed were taken through this gate. Each gate had its special functions during the Ming and Qing dynasties.

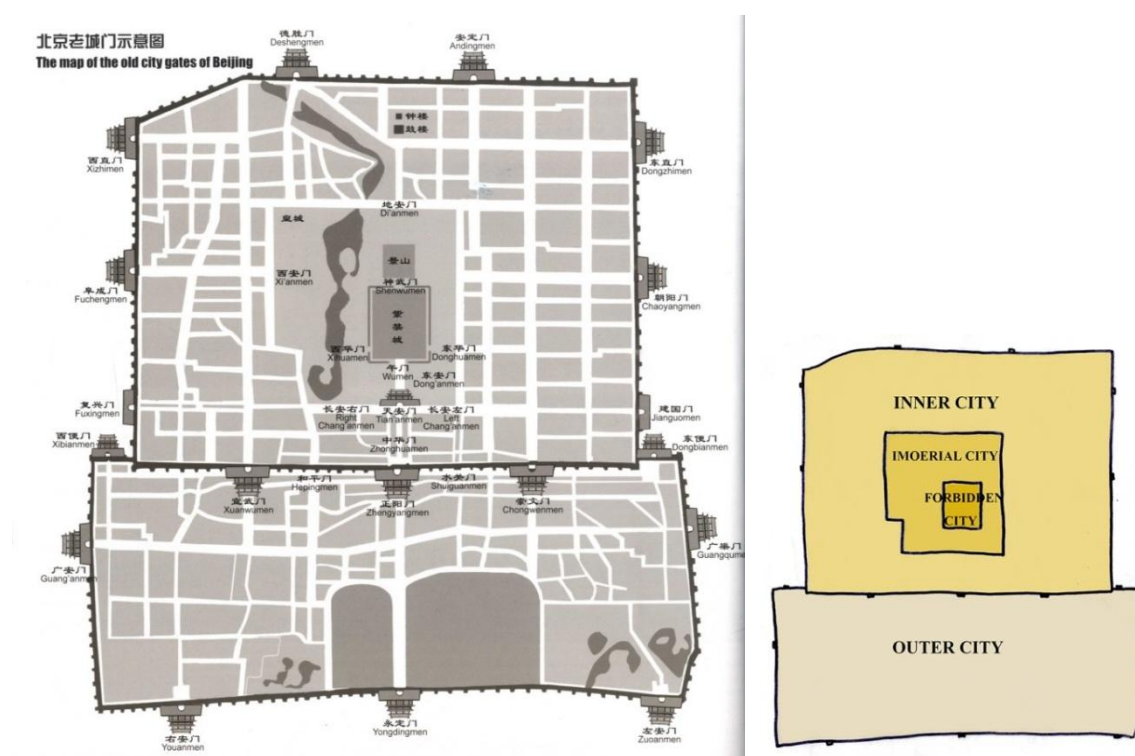


Figure 3.36 City Gates of Old Beijing and Four Layers of City Wall (Yang and Lu, 12)

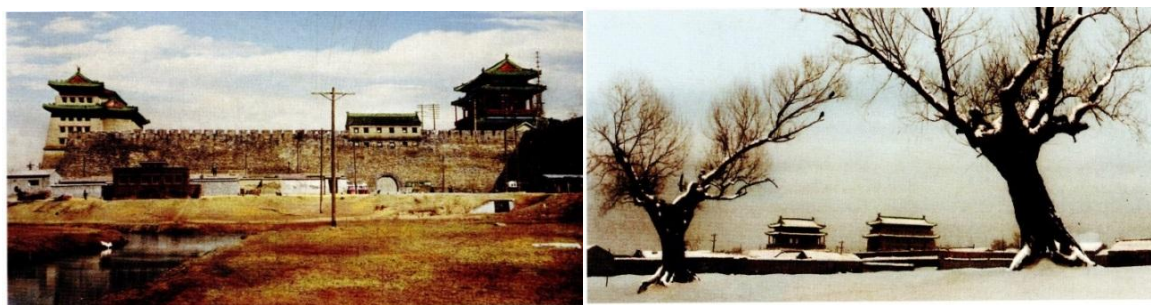


Figure 3.37 Water Gate—Xi Zhi Men (Vanished postcard)

The city wall of the Ming Dynasty did not change much until the late Qing Dynasty. Dimensions and names of walls mostly stayed almost the same. The perimeter of the Inner and Outer City walls was about 50 kilometers long. The base of the wall was 16-24 meters thick, the top was 13-18 meters, and the height was about 10-12 meters (“Beijing City Wall”). Table 3.2 shows the general dimensions of ancient city walls and their current situations in Beijing.

Table 3.2 General Status of the Ancient City Wall (Drawn from “Beijing City Wall”)

Wall	Length	Height	Gates	Tower	Current Situation	Note
Forbidden City	3.4 km	10 m	4	4	Preserved well	52 meters moat
Imperial City	18 km	7-8 m	4		Only one foundation heritage remains in the Imperial Palace Wall Relics Park	
Inner City	24 km	10-12 m	11	47	Only 4 towers remain; a 100-meter wall restored in Xibianmen wall park; another 1500-meter wall was repaired as Ming Dynasty Wall Relics Park.	Subway Line 2 was built under the city wall area
Outer City	28 km	7.5-8 m	7		Yong Ding Men tower was rebuilt as a landmark	

3.2.2.4 Qing Dynasty (AD 1616-1911)

Ming and Qing Dynasties emphasized the protection and repair of the city walls. No extra openings or breaks were developed for defense. Until 1900, the Beijing city walls were well preserved and remained intact, but in the late Qing Dynasty, the once-prosperous empire declined from its former glory. After the long period of development under the Closed-door Policy, the Qing government lacked new knowledge and technologies to prevent invasions from diverse countries. Western powers made aggressive forays into China, but at the same time brought new cultures and technologies. In 1900, Great Britain signed contracts with the Qing government to build railways through China. Their troops broke an opening in the east side wall of the Yong Ding Men gate to let trains pass through the wall. This was the first time that the Beijing city wall was broken. Although the train has been gone from that part of Beijing for decade, the opening still remains and is one of the important footprints of this era's history.

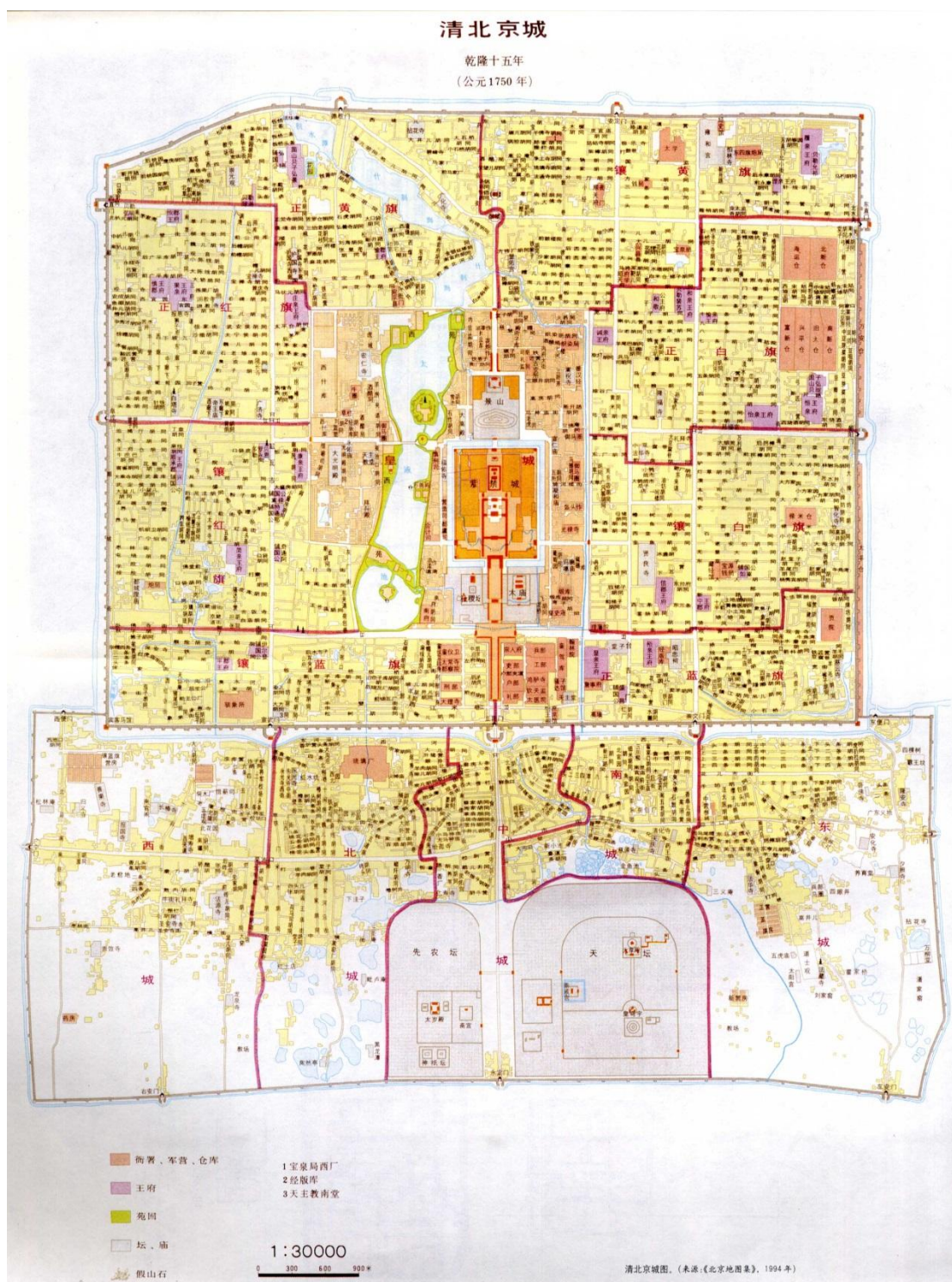


Figure 3.38 Qing Beijing Map (Wang, 40)

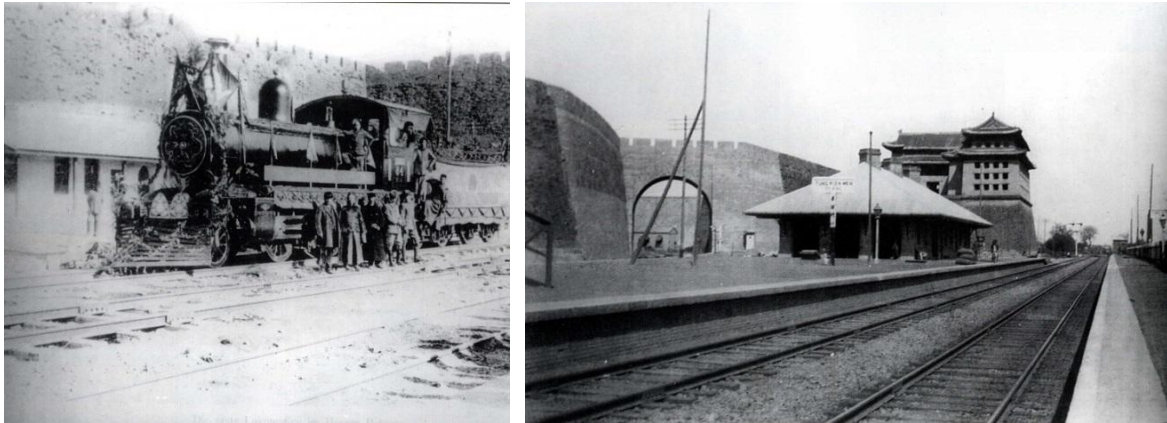


Figure 3.39 First Train Entering Beijing and the Southeast Corner Tower Station (Hu, 24)

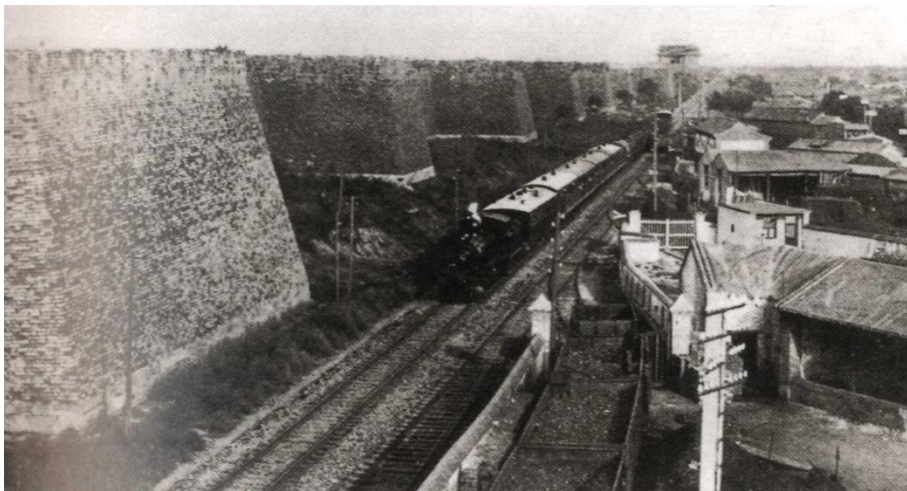


Figure 3.40 Beijing City Railways in the Late Qing Dynasty (Yang and Lu, 29)

3.2.2.5 The Republic of China (AD 1912-1949)

The Republic of China was a turbulent time, marked by war. First, western powers invaded and carved up the territory, making China a colonized country. Then, two political parties—Communists and Nationalists—fought with each other, resulting in a ten-year civil war. During the war, famous architect Sicheng Liang listed important heritage sites in Old Beijing to each of the two parties, hoping to prevent the way from damaging historical remnants. Fortunately, even during the fighting, Beijing—this historical city—was well preserved with its cultural remnants intact, including the city wall. Unfortunately, after the

war when the new People's Republic of China was established in 1949, the ancient city wall was seen as a memory of the feudal past. Starting from the 1950s, the wall was gradually pulled down for diverse reasons, resulting in a huge loss for world heritage and preservation, and a serious lesson from history. The following section explores why such a high-valued heritage was finally destroyed. Several historical factors resulted in the "death" of the city wall.

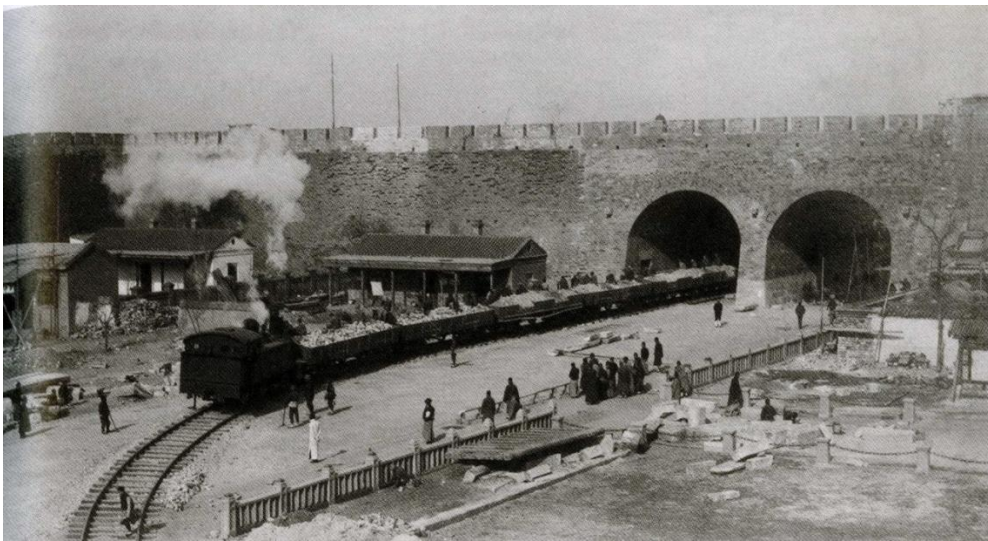


Figure 3.41 Jing-Feng Railway Train Entering the City in 1915 (BMACH, 77)

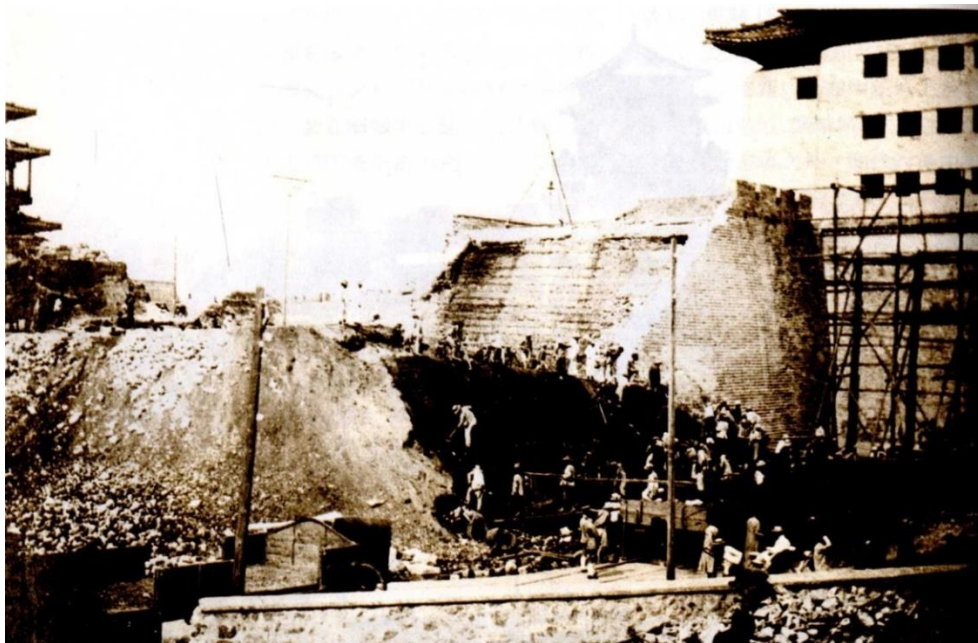


Figure 3.42 Pulling down Wong Cheng of Zheng Yang Men (Wang, 268)

3.3 Demolition of Beijing's City Wall

3.3.1 General History

Before 1949, the feudal system had lasted for three thousand years in China. When the New People's Republic of China was established, a large portion of the population were consumed by thoughts of rebelling against the feudal ideology. When the new government selected Beijing as the new capital, everything in the city was expected to be rebuilt for their new lives. From 1951 to 1958, the outer city wall was gradually removed ("Beijing City Wall"). During this period, the dispute raged, of whether the city wall should remain or be removed. One architect, Sicheng Liang, famous in Chinese history, played an important role in resisting the demolition of the wall, but eventually failed.

Those who supported removing the city wall listed the following points:

- ① The city wall in ancient China was for fortification, and was a relic of the feudal imperial rule. Since its historic task had been achieved, it should be dismantled.
- ② The wall limited urban expansion of the capital.
- ③ The wall impeded transportation and traffic in Beijing.
- ④ Removing the wall would create land that could be reused; bricks and other building materials from the wall could be used to build new roads (Deng, & Zhang).

Although Liang successfully repudiated each of these claims, the government ultimately decided to remove the city wall (Liang, "Liang"). It was a situation in which academic debate was overwhelmed by political might (Wang, 101). That time was an era of transition from the old to the new in government, and politics were a sensitive topic. Liang

and his partners were considered “Rightists,” protectors of the old ways. It was dangerous to be considered a rightist, who might be excoriated and sent to prison. Liang wanted to fight for this valuable heritage and elegant towers, but he was regarded as a protector of the feudal system. When this debate became a political issue, scholars had no rights of speech. The inner city wall—the longest, greatest, most preserved ancient city wall in the world—was gradually removed, brick by brick.

3.3.2 Debate about the Demolition of the Wall and Potential Solutions

In the 1950s, while Soviet scholars embraced the single-centered urban plan, Liang and Chen Zhanxiang (Charlie Cheng) advocated a separate administrative center at the western suburbs. Called “Liang Chen Program,” this proposal was put forward to protect Beijing’s walls, and also to advance future urban planning (Wang, 73). Thus, the rejection of this proposal dispelled the last hope of protecting the city wall, as well as causing, through inaction, an urban design disaster that would plague Beijing over the next 50 years

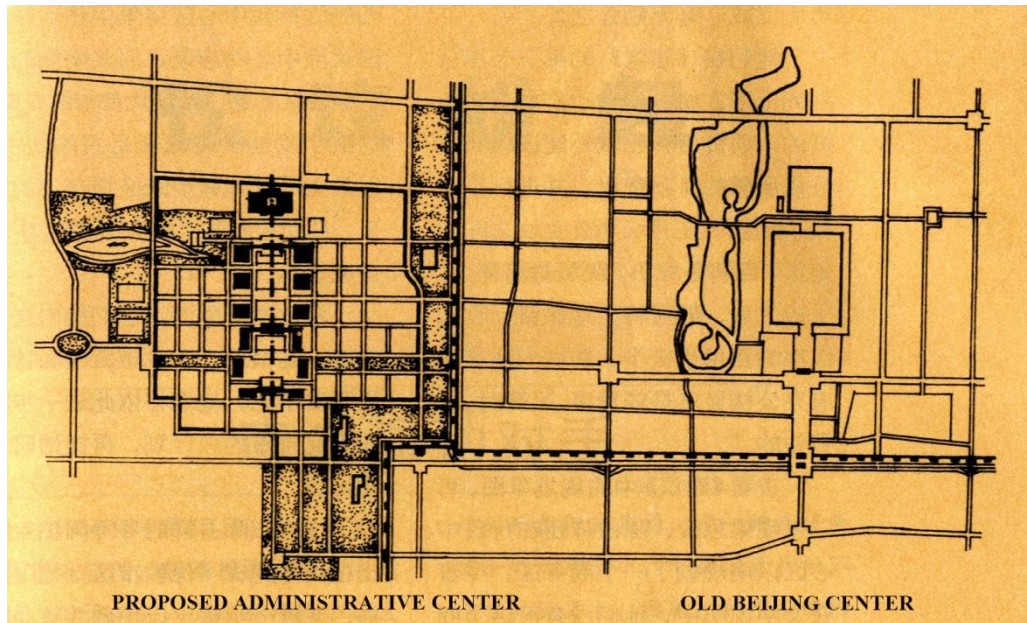


Figure 3.43 “Liang Chen Program” Diagram (Wang, 95)

Liang was prescient. He proposed that the old city should be left as a museum, and the government could create a new political heart in the west. A convenient corridor could connect the old and new city centers along a direct east-west line. Examining the experiences of city centers in Europe and the United States during the 18th and 19th centuries, Liang had found that a single-centered pattern resulted in unlimited, unplanned, disorderly, and unrestricted development of the city, like the spread of weeds. He asserted that the modern city should be divided into a number of smaller regions, separated by landscape zones (Wang, 90). He stated that Beijing should not develop industry and instead should remain a political center with surrounding green spaces.

Liang’s approach to the future of the city wall established its potential as recreational and community space. The area around the moat would be designed as a green belt park. In his vision, the moat could be a good skating rink in winter, and a good fishing and boating place in summer. Flower beds could be planted and in the walkable space along the top of

the city wall. With garden chairs and further additions of landscape elements and infrastructure, the platform could be rehabilitated as leisure space. For instance, decorative lights, movable benches, and outdoor waste receptacles might be placed along the platform of the wall. Towers on the wall could be used as exhibition halls, reading rooms or tea shops. In summer, the city wall would be available for millions of people to enjoy the cool air. This could be a long circular recreational space, an elevated park around the city, totally unique in the world (Wang, 102).

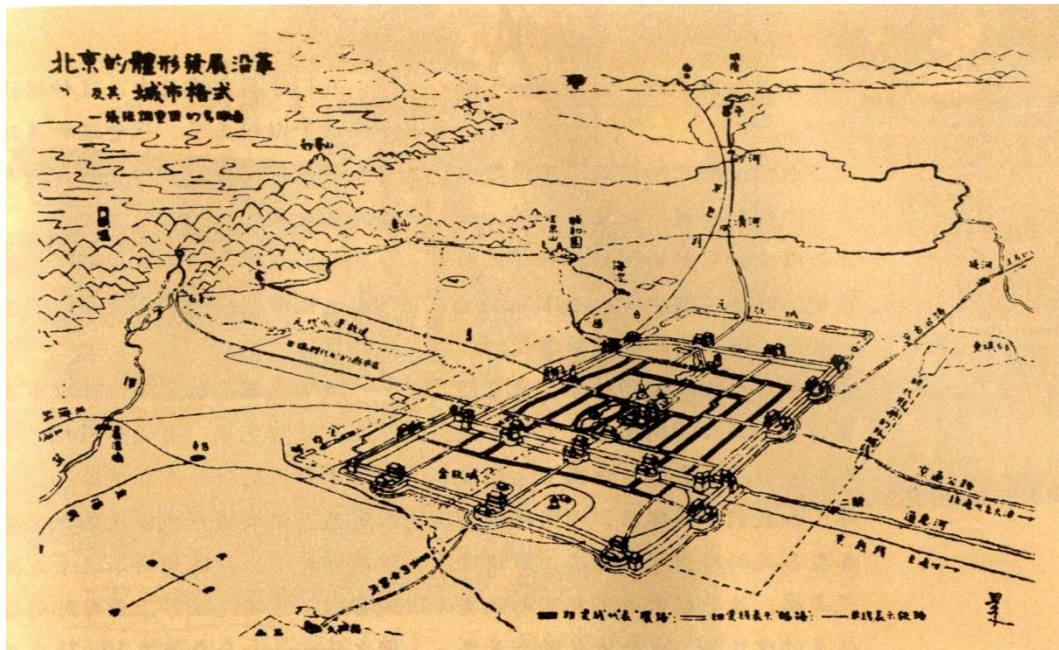


Figure 3.44 Beijing' City Wall Structures Drawn by Liang (Wang, 109)

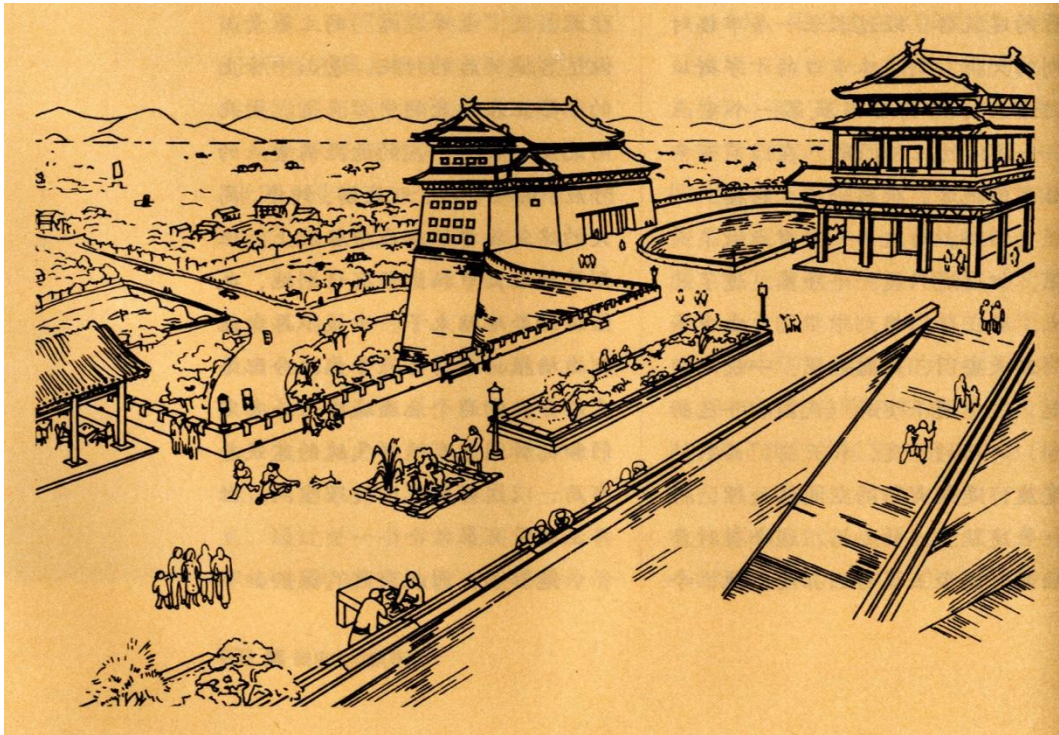


Figure 3.45 Liang's Concept Drawing of the Potential City Wall Park (Wang, 110)

3.3.3 Significance of Liang's Proposal to This Creative Project

Liang's proposal might have had several flaws, but its large structure, turned into recreational space, would have been a valuable contribution to the development of Beijing. However, history is cruel and irreparable. The city wall has been pulled down; and remnants of the ancient city are gradually disappearing. Liang's idea is intriguing and had great forethought, but still was necessarily limited by his times. He did not imagine that Beijing would develop so quickly. Even if the government had settled the political center to the west, the old city would still be an area of dense development today, blocking traffic and resulting in some urban problems.

The city wall plays a different role in modern society. Liang's proposal of the elevated

city park could still work for today's Beijing, as it does in diverse other settings such as the city wall in China that is still intact and the city wall spaces in York, England. This creative project will build on Liang's idea to develop design strategies that address both the historic wall and today's needs for green and recreational spaces. The new site will increase the city's public leisure spaces, memorialize the history of the ancient city wall, and integrate the shared heritage of China's great history with the surrounding area.

3.4 Significance of the Ancient Wall for Today's Modern City

China, a country with long history, has significant heritage in its older structures and urban patterns. The city wall is a special type of ancient architecture. What might be the wall's significance in modern society? Three aspects demonstrate the importance of protection and memorialization.

① Heritage has a prominent regional and national character. Each country and nation has an identity that includes their language and distinct customs, literature, art, costumes and religious beliefs. People thinking of the Egyptian civilization would recall tall pyramids and the sphinx; relate China with the Forbidden City and the Great Wall; and see illustrations of France's national and ethnic culture from the Louvre and Les Halles. The city wall, especially an integrated city wall, can supply a living model of part of the ancient people's world. More importantly, China's historic cities are unlike those of Europe, where the older parts of cities are also threatened by development. Ancient Chinese society was

ruled as a stable unity over long parts of its history, which has resulted in multiple different periods of historic buildings and cultural monuments that remain in the older cities.

② Heritage is the witness of history, the common wealth of mankind. China has more than 3,000 years of recorded history to appreciate. This rich heritage provides an enhanced resource for the study of history, but could also be a tool for education in patriotism, as well as historical research. China's ancient cities were mainly built according to prior careful planning. There was had a complete set of concepts and systems, including the central axis of symmetry, underground water drainage facilities, and ground constructions. Very early city planning followed Chinese Confucian ethics (Ruan). Historic cities in China had important cultural functions. The city wall should reflect the complete pattern of the city, the social environment, and unique urban and historical styles. Although the wall has disappeared, its restoration could draw people's interest to explore the historic pattern of their capital city. This presence of the past is very important to the identity of the modern city.

③ Another significance of heritage in modern cities is the value of tourism value. Tourism is an important pillar of economic development, and supports important cultural and educational activities that benefit residents, as well. Heritage was created by the real artifacts of history. Once destroyed, it is lost. Due to the loss of many tools of ancient technology, processes, skills and materials, some older structures cannot be rebuilt; plus, rebuilt replicas have much less value. Destroyed scenery, ancient trees and old structures are irretrievable (Luo, Zh.); therefore, landscape architects should restore heritage as much as possible, and memorialize it in appropriate ways.

3.5 Conclusion

Through the exploration of theoretical background and history of the ancient city wall, the general research framework is clear to follow. The best methodology for this creative project is to layer ancient city maps onto the current Beijing map, and then explore potential sites for the project. According to the specific site survey, these areas will be highlighted and memorialized as public spaces. The three main focuses of this creative project will be heritage preservation, historical representation and suitable open spaces. Through diverse research about the topic, the appropriate design strategies will be addressed to present public spaces with suitable heritage presence. Research about the city wall history in Beijing supplies amount of foundational information to explore potential design strategies and inspirations. This creative project will celebrate the remaining city wall in a suitable way, respect the history and spread the stories through the design, and create impressive and comfortable spaces for nearby neighborhood and visitors.

CHAPTER 4. SITE HISTORY, SITE SELECTION, INVENTORY AND ANALYSIS

Beijing has a rich historic heritage, and researching the background of the site will supply design opportunities for the project. This chapter explores urban planning and policies in the modern city of Beijing, investigates current situations of the city wall remnants, examines site selection factors, and gathers sufficient information through site inventory and analysis to provide a basis for the following design program and process.

4.1 Beijing's Historic City Pattern and Modern Urban Planning Ideas

Old Beijing has historically been developed as a single center, circled by the city wall structure. This pattern persisted until the new Republic of China was established in 1949. For a long period, this single center pattern was spreading with outward growth, forming concentric circles around Beijing. Academic scholars have described this concentric and coaxial model of urban planning as “making a pie.”

In 1983, the Beijing government published the *Beijing Urban Construction Master Plan*, which continued the policy of “the old city as the center, outward expansion from the core.” As a result, the third circle road became increasingly busy (Xu, X.).

In 1993, the government once again developed an overall urban planning proposal covering the period from 1991 to 2010. The proposal was first put forward as a means to

relocate concentrated populations to new districts and surrounding satellite towns (Xu, X.); however, this good intent was not implemented. Many problems persisted, including increased density of the centralized population, escalating traffic problems, and loss of characteristic courtyards in residential neighborhoods.

Table 4.1 Estimated Gaps between Projected Population Figures and Actual Accounts
(Drawn from Xu, X.)

Year	Resident population	Floating population
2010 (1993 plan)	12.5 million	2.5 million
2010 (Actual data)	19.61 million	7.05 million

Table 4.2 Gross National Production (GNP) (Drawn from Xu, X.)

YEAR	GNP (RMB)
1991	59.889 billion
2010 (Projected)	120 billion
2002 (Actual)	313 billion

Table 4.1 shows projected and actual data in 2010 about residential and floating population in Beijing. Floating population means those migrants in Beijing. The huge gap between data reflects Beijing has developed more rapidly than the government expected. Table 4.2 shows Beijing's 1991 GNP and projected 2010 GNP. However, by 2002 Beijing had already far exceeded the projected 2010 data.

The government expected to use the 1993 Plan through 2010. However, Tables 4.1 and 4.2 show that Beijing's economy experienced unexpected rapid growth from 1991 to the present. Many of Beijing's current urban problems stem from population and economic growth expanding much more quickly than anticipated. With growth of both populations being almost double what was planned, and the GNP approaching a growth rate of almost

triple what had been expected, Beijing is struggling to contain and accommodate its new prosperity. With these levels of growth in population and production, the number of motor vehicles has also escalated in these seven years to levels that exceeding the last 48 years combined, resulting in serious traffic problems in Beijing.

As urban problems became increasingly serious, the government revised the Beijing City Overall Planning. In 2004, Mr. Qishan Wang—the acting mayor of Beijing—proposed a new pattern of urban organization—“Two axis—Two belts—Multicentered” (Xu, X.).

Table 4.3 summarizes the basic implications of this new proposal.

Table 4.3 New Proposal of Beijing’s Urban Planning (Drawn from Xu, X.)

	REGION	FUNCTION
Two Axis	Traditional central axis and Chang'an Street axis	Capital, political, cultural, economic functions
Two Belts	An eastern development zone, including the counties of Huanrou (怀柔), Miyun (密云), Shunyi (顺义), Tongzhou (通州), and Yizhuang (亦庄).	Mitigate the demands of the increased population and the growing industrial sector.
	Western ecological belt, including western mountain area, Yanqing (延庆), Changping (昌平), and Shahe (沙河).	Beijing's buffered barrier, to build a foundation of the most suitable human habitations.
Multi-center	Diverse focus areas within the “two belts,” such as the CBD, Olympic Park, Zhongguancun district, and Metro-city	Improve the efficiency of city services; distribute traffic pressure; absorb the requirements of the center city's new industrial and population levels.

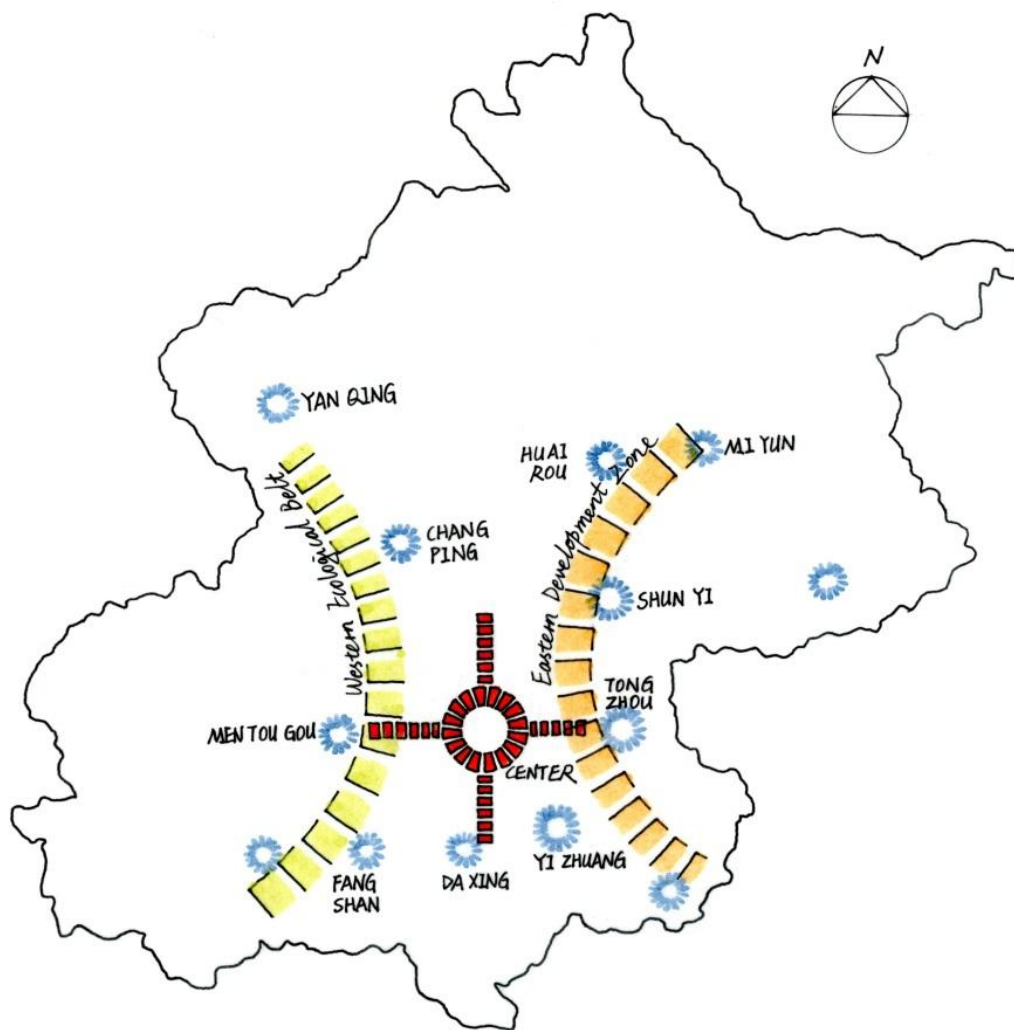


Figure 4.1 2004 New Proposal Diagram

No historical city pattern can be identified in today's large-scale modern Beijing. However, maintaining and restoring the old city pattern in selected areas is important to celebrate the historic past. This creative project addresses the longest remaining section of the city wall and its historic footprints, projecting this heritage with appropriate green spaces, and providing references for future plans to reinstate the ancient pattern of neighborhoods along the city wall area.

4.2 Current City Wall Policies and Projects

4.2.1 The Current Policy

The Old Beijing map shows an integrated city wall structure with a clear convex “凸” shape in plan and an obvious central axis from north to south. During the 1950s, the New People's Republic of China removed most of the city wall above ground, but constructed the first subway loop—Line 2—along the remaining strong city wall foundations (Figure 4.2). At the same time, above ground, the main city road—the Second Ring Road was structured along the demolished wall area. Consequently, the current Second Ring Road shows the traditional convex shape of Old Beijing, but without the elevated city.

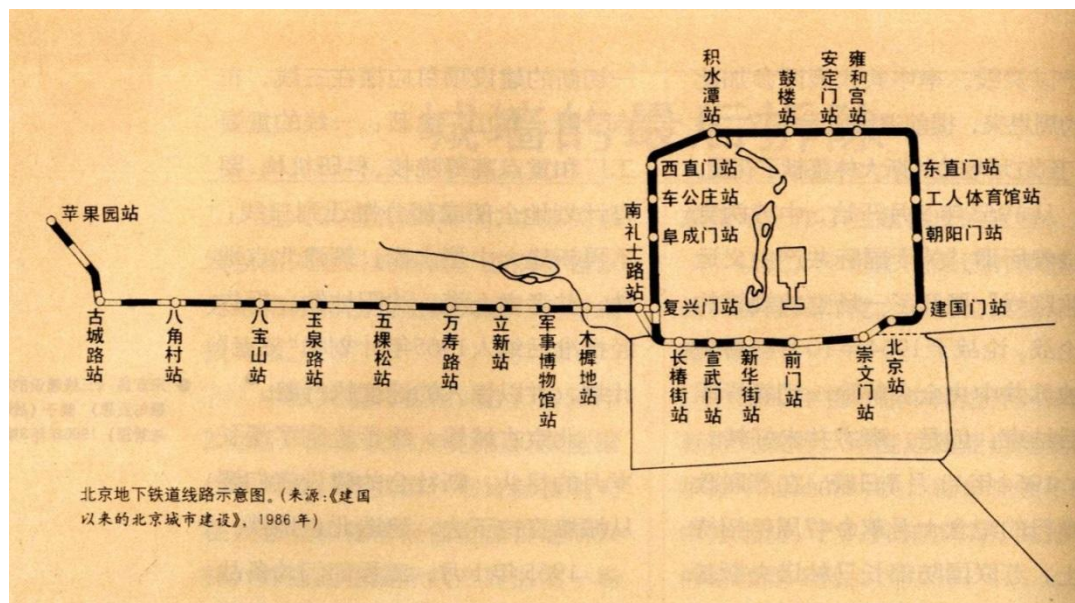


Figure 4.2 Relationships of Subway Line 2 and the Second Ring Road (Wang, 298)

Before the 1950s, there were 47 gates and towers along the city wall. Right now, only one arrow tower (De Sheng Men), one watch tower (Dong Bian Men), and one gate with two towers (Zheng Yang Men) remain. The Inner City Wall was 24 kilometers long during the Qing Dynasty. Now, only 1,500 meters of the original walls remain.

In 1996, the government planned to restore the remaining Ming Dynasty city wall as a public park. When the city walls were pulled down in the 1950s, many citizens quietly brought clay bricks home as a memory. When restoration of the walls was proposed, local residents contributed their brick collections to the government project. Finally, in September 2002, the Ming Dynasty City Wall Relics Park opened to the public.



Figure 4.3 Ming Dynasty City Wall Relics Park in 2012 (Author)

In 2012, the government proposed two new programs of heritage restoration: "Restoration of Historic Landmarks" and "Hundred Heritage Conservation Renovations." The Restoration of Historic Landmarks program addresses the city wall pattern and important landmark structures. Through rebuilding the landmark towers of the city wall, these programs will restore the traditional convex “凸” city pattern. Figure 4.4 shows the government’s proposal for restoring the convex city pattern.

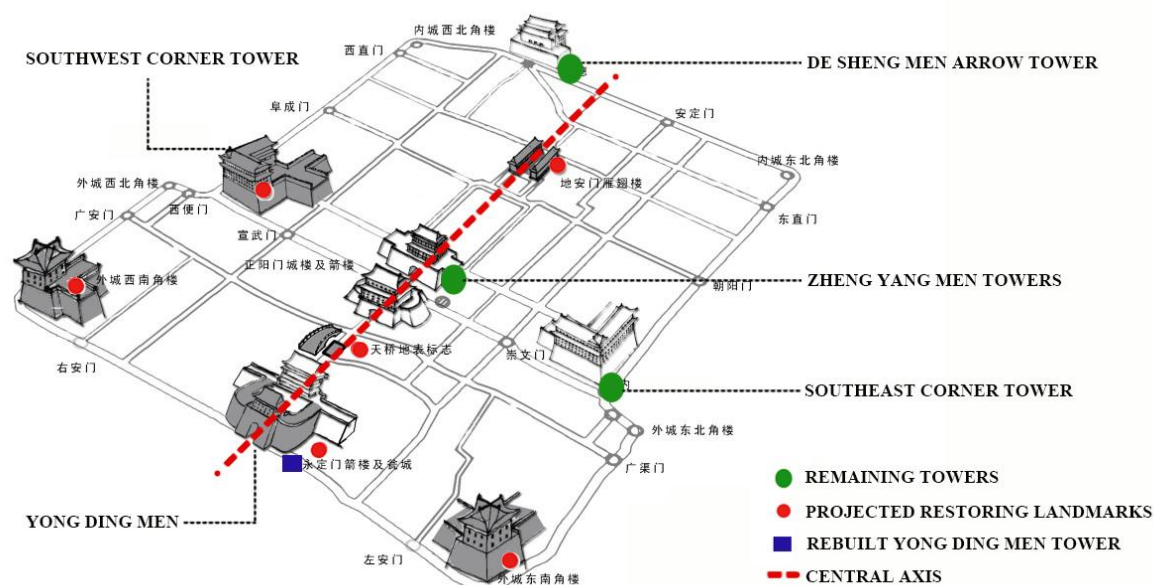


Figure 4.4 Diagram of Historic Landmarks Planned for Restoration (Wang, Wei & Wang)

With Beijing's rapid population and economic development, more scholars are emphasizing the importance of protecting the ancient city. However, this will require more than just preserving a few traditional courtyards and Hutong, or rebuilding single "heritage landmarks." It should concern the whole city structure, and development that will be sustainable into the future. Important lessons can be learned from history. Heritage restoration should not be simply a matter of rebuilding, but should also address the potential for transmitting history and its lessons. This creative project commemorates the city wall with the intention of enhancing people's recollections of history and the ancient city. A programmatic goal of the design is also to address the crowded city's shortage of green open leisure space in the urban center.

4.2.2 South Central Axis Park and Yong Ding Men Tower

Located on the south end of the central axis (Figure 4.4), Yong Ding Men was the front entrance of the Outer City during Qing and Ming Dynasty. Like other gates, Yong Ding Men also consists of a gate tower, arrow tower and Wong Cheng. In 1951, the walls around this gate and Wong Cheng were pulled down to widen the street and improve traffic circulation. In 1957, the Gate Tower and Arrow Tower were also demolished. The same stories of loss were repeated. In 2003, however, the Beijing government moved to restore the landscape and urban features along the central north-south axis. As one of the most important historical landmarks, a new Yong Ding Men was built north of the original location, a reconstruction of the original. An open public park along the south central axis was built at the same time. The Yong Ding Men South Central Axis Park opened to the public in 2004. In 2009, Yong Ding Men and the south square also opened. The park area is about 20,000 square meters that includes 13,800 square meters of green area. This linear park offers a broad central access directing to the center of Beijing. This strong access reminds people of the historic axis, forms the powerful symmetrical pattern, and offers a historical attraction for tourists.

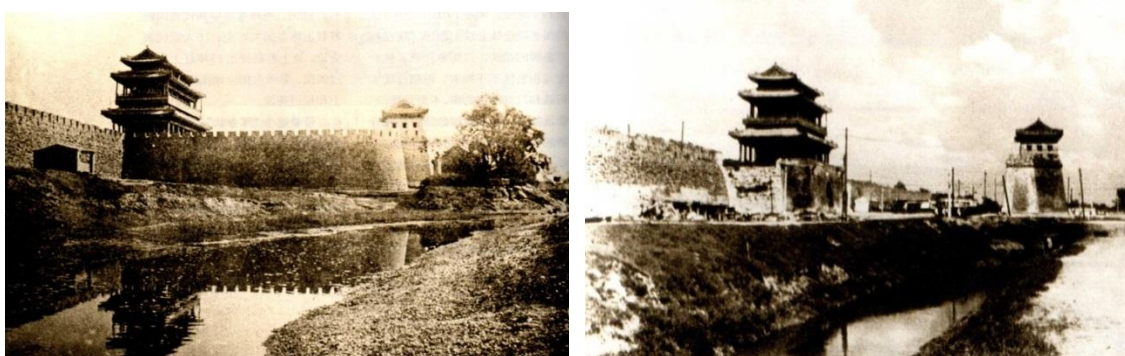


Figure 4.5 The Yong Ding Men Gate with Wong Cheng prior to the Republic of China (left), and Showing the Loss of the Wong Cheng in 1952 (right) (Wang 242)



Figure 4.6 The Yong Ding Men Gate Tower in 1952 (left), A Digital Synthesis Showing the Gate and Arrow Towers (center), and the Rebuilt Tower in 2003 (right) (Wang 103)

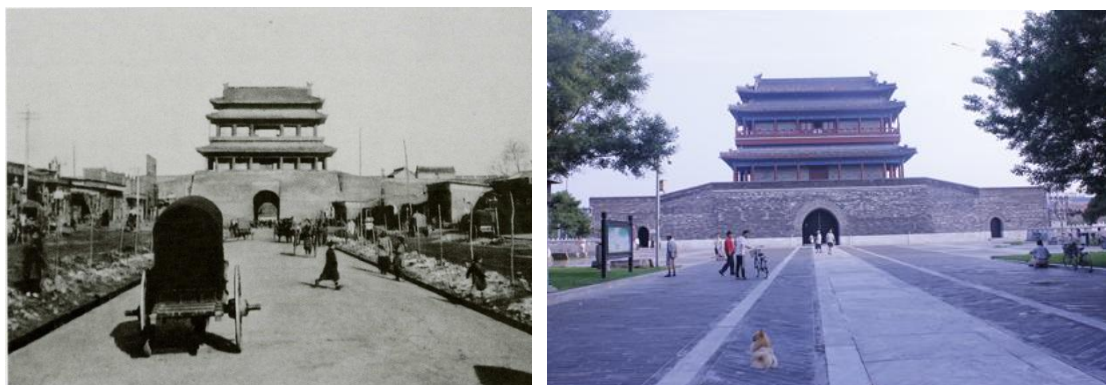


Figure 4.7 Inside the Yong Ding Men in Ancient Time (left) and Present Day (right) (BMACH 87, & Author)



Figure 4.8 Historic Views of the Exterior of the Yong Ding Men Gate (from left, BMACH 86; Hu 25; and Yang & Lu 25)

On the two sides of the linear green park are two important groups of historic architecture. On the east side is the Temple of Heaven—the place for Qing and Ming emperors to worship and pray for rain. It is the largest and highest level in China's existing ancient sacrifice and ethics building group. Right now, Temple of Heaven is a public park, attracting many people to exercise, sing and enjoy for relaxation. On the west side is the

Altar of the God of Agriculture—a place to worship gods and to allow emperors to farm as models for common people. During the early period of the People’s Republic of China (AD 1912-1949), many of these buildings were pulled down. Right now, the remaining ancient buildings are protected as the Beijing Ancient Architecture Museum.

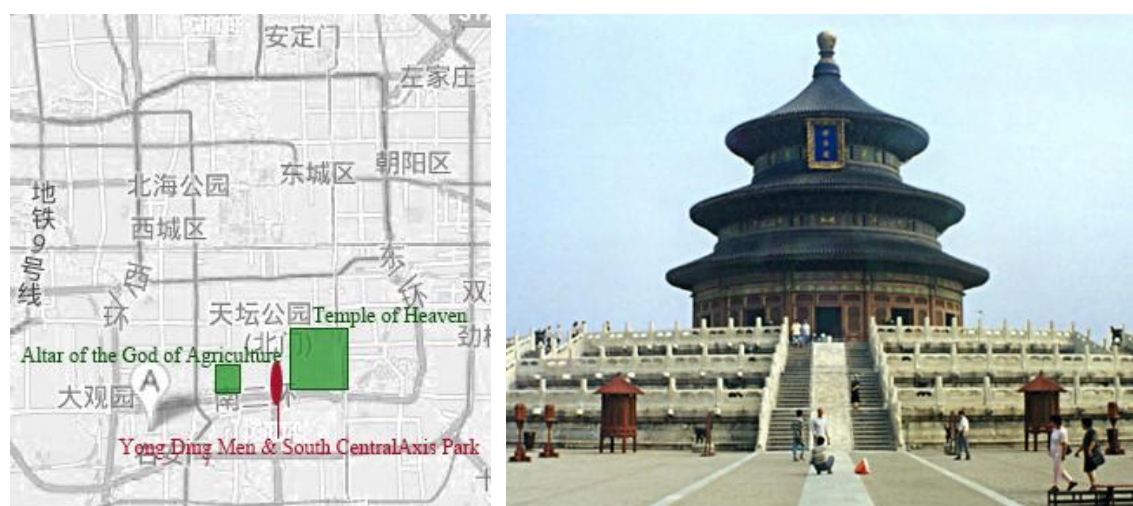


Figure 4.9 Location of the Central Axis Park and Temple of Heaven (Author)

As part of the “Restoration of Historic Landmarks” project, the Yong Ding Men Gate was the first to be rebuilt. Being the south main gate and proximity to surrounding historical groups make this gate much more important than the others. The re-created city tower clearly marks the south end of the central axis with the ancient landmark. However, this is not the original ancient structure, but rather a modern construction intended to be infused with historical memory and ideas. This creative project will not judge these rebuilt structures; instead, it will focus on addressing how to protect the remaining historic remnants in ways that interpret history and keep these stories in people’s minds, while also considering the needs of today’s urban population.

4.3 Existing Conditions of Beijing's Historic City Wall Remnants

Beijing has an 800-year history as a capital. The historical fabrics related to the city wall are fragmented by modern construction. This section explores these remaining city wall fragments from different dynasties and investigates ancient social and cultural patterns.

4.3.1 Liao and Jin City Wall Museum

As mentioned in section 3.2.2.1, no historical city wall remains from the Liao Dynasty (AD 907-1125). From the Jin Dynasty, only one underground room below the city wall was found in 1990. The Beijing Liao and Jin City Wall Museum (Figure 3.30) was built above the ruins of this water pass in 1995 and remains free and open to the public, displaying the remaining parts of the historic water gate and other antiquities discovered at the site. The water pass was early technology to regulate “water passage of the river course and ditches under the city wall.” The site also contained evidence and artifacts related to the “settlement and life activities. It marks the advance of human civilization and has gradually become an essential part of a city’s planning and construction” (Beijing Liao and Jin City Wall Museum).

Studies of the ruins show the water gate was built during the Jin Dynasty (AD 1115-1234), used until the early Yuan Dynasty (AD 1206-1368), and abandoned in the middle of Yuan Dynasty. This underground area of the site is 660 square meters. The water pass was built to cross under the city wall, directing water from the north to south. It shows that water flowed from the north inner city to south outer city, then finally into the moat. A

large structure of wood and stone, the pipe section is 43.4 meters long. The height of the water pass is 5.6 meters above the foundation, and the length of the culvert is 18.7 meters. Right now, the remaining highest point is only one meter (Figure 3.32), and the width between walls is 7.7 meters (Beijing Liao and Jin City Wall Museum).

The Beijing Liao and Jin City Wall Museum is a unique and specialized historic site. The water gate provides real evidence about the layout of Jin Zhongdu (the Capital of Jin Dynasty) and of Beijing's history. The water pass fragments display a historic water system, important to the study of ancient construction and water management technology. The integrity and scale of this water pass have qualified the site for listing as a State Protected Historic Site in 2001.

4.3.2 Historical Remnants from the Yuan Dynasty (AD 1206-1368)

After the Jin Dynasty, the old site of Jin Zhongdu was abandoned during the Yuan Dynasty and a new city named Yuan Dadu was built on the northern part of the former location (Figure 3.28). From investigations of remnants from Yuan Dynasty, only two sites remain in present-day Beijing: the Yuan Dadu Earthen Wall Relics Park and Beijing Ancient Observatory.

4.3.2.1 The Yuan Dadu Earthen Wall Relics Park

Before the Ming Dynasty, all city walls of Beijing were made with clay. Different from the brick structures of the Qing and Ming dynasties, the city walls in Yuan Dynasty were

made by filling clay into wooden moulds and ramming it into firm blocks. To protect the walls from rain, people covered them with straw. Thus, the remnants of the city wall are earthen surfaces, difficult to recognize after so many years. The plan of Yuan Dadu appears as a strictly aligned rectangular form, 28.6 kilometers in length. Now, only the north part and small sections of the west city wall remain (Figure 4.10). During the 1980s the government planned a heritage park, in part to protect the remaining elements. In 1988, the Yuan Dadu Earthen Wall Relics Park was built around the remaining city wall. In 2003, as one of the 2008 Olympic projects, the park was restructured into nine landscape zones designed to display Yuan culture and social practices. The current park is 9 kilometers in length, and 670,000 square meters in area. Transportation now separates the park into two sections (Figure 4.10). The north part—the Chaoyang section—is 4,200 meters long and 100 to 160 meters wide, including the 15-meter-wide moat. The west wall section—the Haidian section—is 2,000 meters long.

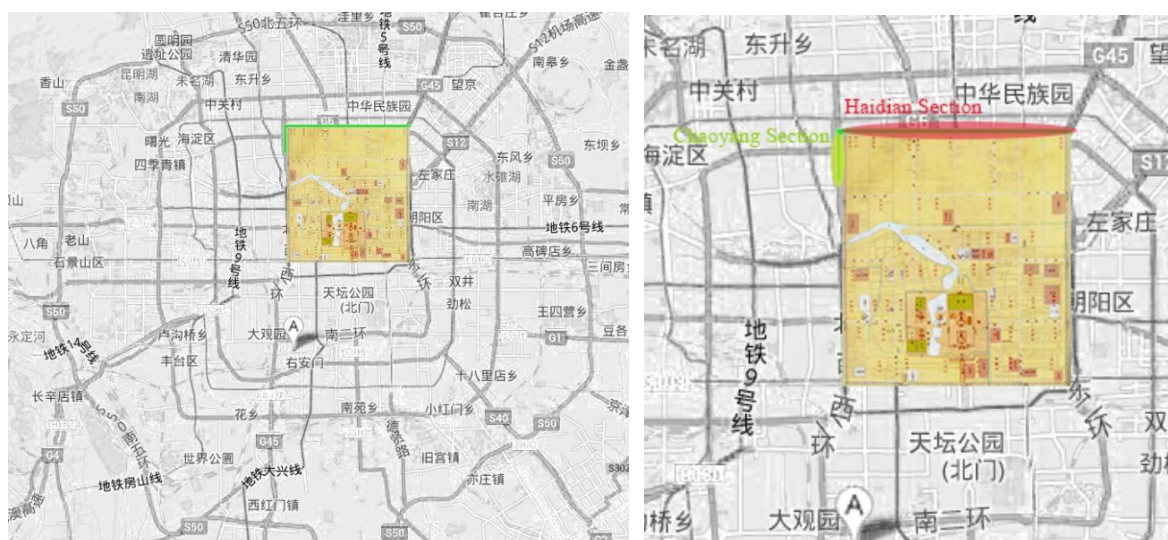


Figure 4.10 Location of the Yuan Dadu Earthen Wall Relics Park within the Second Ring Road (left); Position of the Park at the North Edge of the Historic City (right) (Author)

Chaoyang Park is much more comfortable and accessible compared to the Haidian. Surrounding neighborhoods highly appreciate the Yuan Dadu Earthen Wall Relics Park as a green space for leisure uses. However, visitors easily ignore the earthen walls—the most important part of this park—because the remaining walls appear to be typical hillocks without given any historical context or educational interpretation (Figure 4.11). This creative project will learn from these sites which successfully create welcome recreational green spaces, but will also seek to reclaim the heritage of the city wall’s history, celebrating the park as a key part of Beijing’s ancient history.



Horse Sculptures



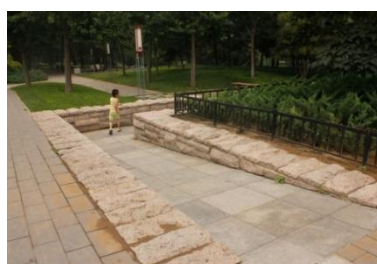
Historical Earthen Wall (background)



Singing in the Park



Genghis Khan Sculpture



Accessible Ramp



Rebuilt Wall Structure

Figure 4.11 Pictures of Yuan Dadu Earthen Wall Relics Park (Author)

4.3.2.1 Beijing Ancient Observatory

The Beijing Ancient Observatory lies along the Second Ring Road, with the earliest structures built in 1442 during the Ming Dynasty (1368-1644). “It has 568 years of history and was the national observatory during the Ming and Qing dynasties” (“Beijing Ancient Observatory”). The observatory complex includes a platform tower, astronomical instruments, and a traditional courtyard. The tower was built in the area of the southeast turret during the Yuan Dynasty. Atop of the tower are the remaining eight astronomical instruments made and used during the Qing Dynasty.

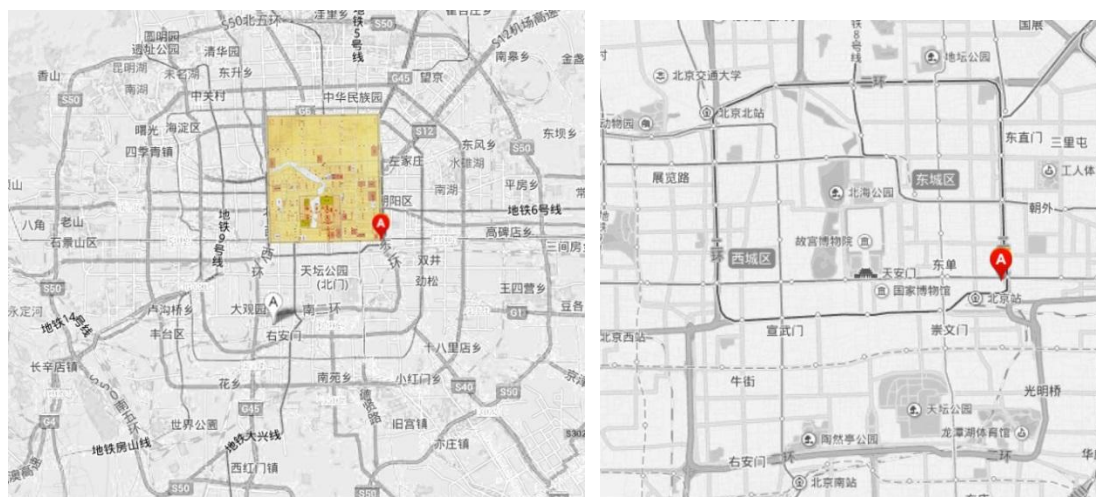


Figure 4.12 Location of the Beijing Ancient Observatory on the Second Ring Road

The observatory was first named the “Administration of Heavenly Observatory” during the Yuan Dynasty, and was ruined in the wars between dynasties. In 1442, the Ming Yongle emperor built another southern city wall south of the Yuan Southern wall. The southeast turret from the Yuan Dynasty was then rebuilt as the new observatory tower, and equipped with an Armillary Sphere, an Abridged Armilla and a Celestial Globe. Four years later, additional construction to accommodate equipment and service buildings was completed,

forming today's observatory complex. In 1929, the observatory ended 500 years of continuously active observation and became the first astronomical museum in China: the National Astronomical Museum. Following long-term disrepair, restoration of the observatory began in 1979. In 1983, it was formally named the "Beijing Ancient Observatory" and opened to the public ("Beijing Ancient Observatory").

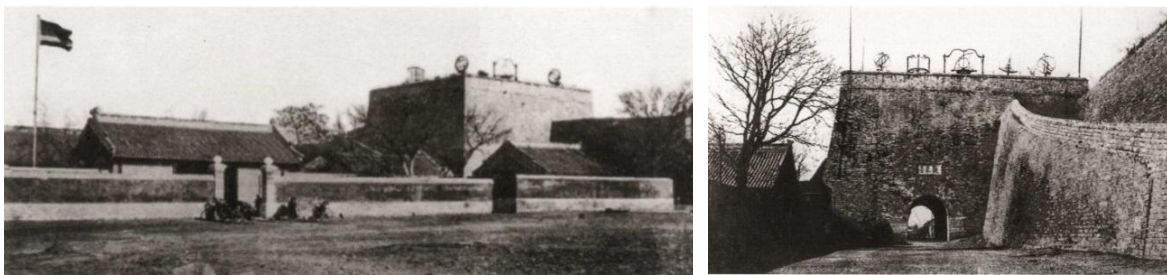


Figure 4.13 Ancient Observatory in the 1920s (Yang & Lu 75)

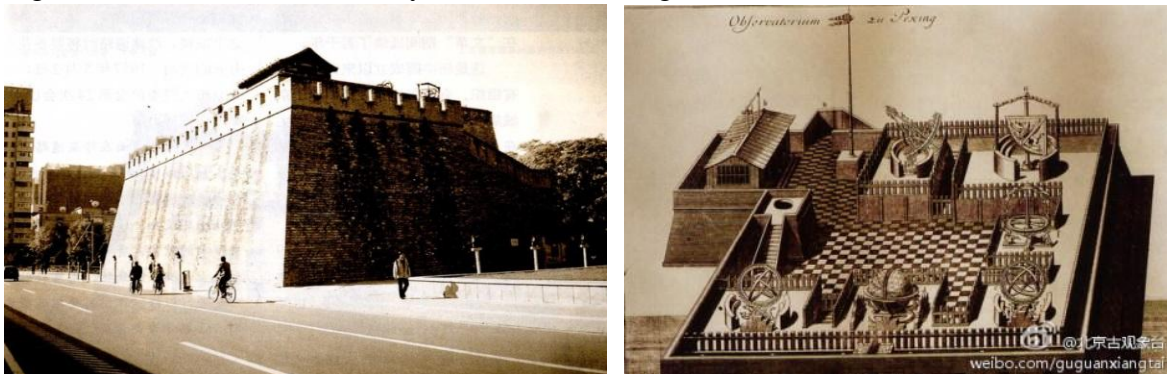


Figure 4.14 The Current Ancient Observatory (left) and a Drawing of Astronomical Instruments from the Qing Dynasty (right) (Wang 299)

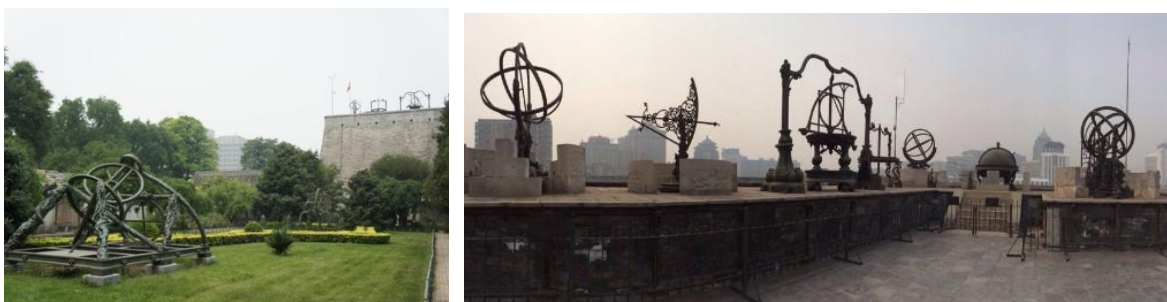


Figure 4.15 The Current Ancient Observatory with Astronomical Instruments (Author)

Now the observatory is open to the public as an educational museum. The eight pieces of original astronomical equipment still stand on the top of the tower. Beijing Ancient Observatory is one of the oldest astronomical observatories in the world and has played an important role in astronomical history. Once the Yuan Dynasty turret, the observatory tower has witnessed changes of dynasties. Its location is only 300 meters from the creative project site. Standing on top of the tower, it is possible to see the bird's-eye view of the project site and the Ming Dynasty Southeast Corner Tower. From the high deck of the project site, the structures of the observatory tower will be visible. This reciprocal visual connection will help generate design strategies for this creative project and offer future opportunities in the historical wall area.

4.3.3 Historical Remnants from Ming and Qing Dynasty

The Ming and Qing Dynasties were relatively closer to modern society, and most historic remnants date from these two dynasties, especially the Qing. After the Ming Yongle emperor reshaped the city wall and the structure of the capital, few changes were made until the foundation period of the New People's Republic of China (1949-now). This investigation found that most ruins from these dynasties exist as separate museums or public parks. This discussion will divide them into two types: remnants of walls and remnants of towers.

4.3.3.1 Relevant Wall Parks

4.3.3.1.1 Ming Dynasty Wall Relics Park

The Ming Dynasty Wall Relics Park is located in the central part of Beijing, extending from the southeastern corner tower in the east to the Chongwenmen Gate in the west. It covers an area of 15.5 hectares with 3.3 hectares occupied by the city wall and southeastern corner tower. Originally built in 1419—the Yongle period of the Ming Dynasty—the original city wall was about 40 kilometers long in total. The current remaining 1.5 kilometer city wall was part of the inner city wall.

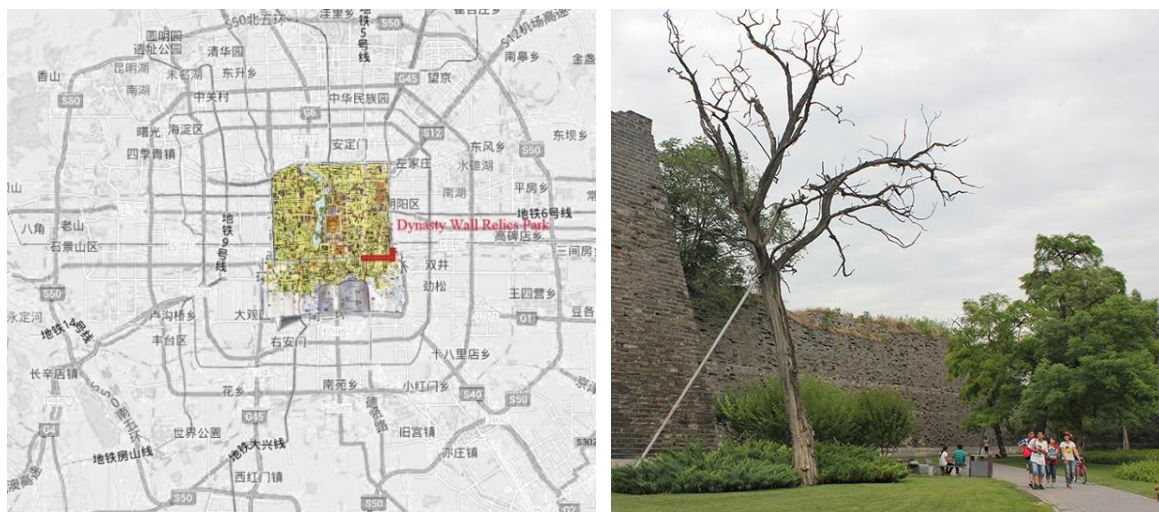


Figure 4.16 Location of the Ming Dynasty Wall Relics Park (left), and City Wall Park View (right) (Author)

This section will involve three culturally relevant historic structures around the city wall: the Grain Transportation Wharf on the Grand Canal, the Immortal Peach Palace, and the Beijing-Fengtian Railway.

- Grain Transportation Wharf on the Grand Canal

The construction of the Grand Canal started during the reign of Emperor Suiyangdi during the Sui Dynasty (AD 581-618). Stretching from Hangzhou in the south to the Tonghui River in the north, the Great Canal was one of the longest man-made canals in China's history. The northeast canal bank near the southeast corner tower was the wharf at the end of the Grand Canal. In ancient times, the canal played an important role in the development of trade between the north and south of China. The wharf used to be bustling with streams of ships passing back and forth. In the present day, the former wharf area and moat embankments have been redeveloped as green spaces. This wharf is located south of the tower, and offers opportunities for the creative project to form historical connections with the area.

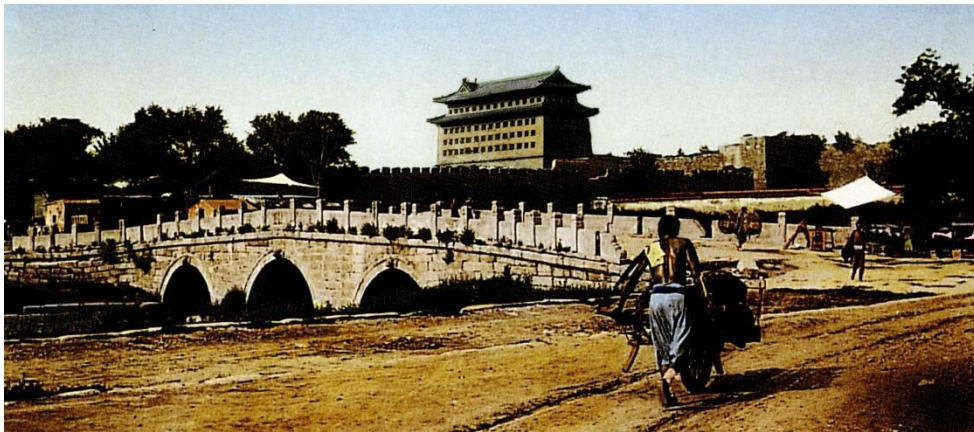


Figure 4.17 Datong Bridge near the Wharf (“Vanished” postcards)

- The Immortal Peach Palace

The Immortal Peach Palace is a Taoist temple standing southeast of the corner tower. Initially built in the Ming Dynasty (AD1368-1644), it was known as one of the most famous temples in the Qing Dynasty. Since the late Ming, an annual temple fair—the Immortal Peach Fair—had been held on the third day of the third lunar month. The

most prosperous area of the fair was about 1.5 kilometers east of the Chongwen Gate, which is now a modern community. However, the fair could be celebrated at the new city wall site, being proposed by this creative project, which is near the original temple area. The fair included trees newly leafed out for spring and flowers in bloom, remains of firecrackers on the ground, performances and promenades of celebrants in their best dress—the typical picture of a spring temple fair. It is a pity that the temple no longer exists. People can only imagine the fair and temple from historical resources.



Figure 4.18 Historic Photograph of the Immortal Peach Temple Fair, with the Southeast Corner Tower in the Background (Hu 44)

- Beijing-Fengtian Railway

The Railway was first built in the late Qing Dynasty (1616-1911) and was used through the Early People's Republic of China (1912-1949). This 42-kilometer railway originated from the Zhengyangmen Station in Beijing and ended at the Fengtian Station in Liaoning Province. At the end of the 19th century, the British and Russians fought fiercely for the rights to the building of the railway. The British succeeded, and

signed a contract with the Qing Government. In 1912, the Beijing-Fengtian Railway was opened to traffic. Today, only a small section of track and one signal station remain of the Beijing-Fengtian Railway. The signal station and Qianmen railway station were designed and built in 1901 by British engineer Claude William Kinder (Ming Dynasty Wall Relics Park). Now over 100 years old, the signal station was the first along the Beijing-Fengtian Railway, and most of its structures are original construction. The building is now open to the public as a tea room. The remaining original tracks were found in September 2002 during the construction of the Ming Dynasty City Relics Park. Now, they are exhibited adjacent to the signal station.



Figure 4.19 Remaining Track and the Current Signal Station (Author)

Whether these historic structures remain or not, they are visible evidence of past cultural periods with much to offer future generations. The structures may decay, but their stories will be noted in the design as the site of the creative project is part of the Ming Dynasty Wall Relics Park. Consequently, the design will address history related to the city wall.

4.3.3.1.2 Xi Bian Men Ming Dynasty Wall Park

Xi Bian Men was once the northwest gate of the outer city, built during the Ming Dynasty (1368-1644). Left in disrepair from limited maintenance, only about 100 meters of the original walls remained by the 1980s. In 1987, the remaining city walls were repaired, and a public park was designed for the site, as a setting for the wall. To better represent the original city wall facade, new walls and towers were built to connect with the old walls. Thus, there are actually two Ming Dynasty Relics Parks in Beijing. The one mentioned above is the most famous, with the longest remaining Ming Dynasty city wall in Beijing. The one in Xi Bian Men only has a short section of the old wall and some newly built or restored walls. The park is desired as green space, but is surrounded by busy transportation. Pedestrians must walk through an underground pass to enter this park. As one of the two sites with remaining historic city walls, Xi Bian Men Park has potential to be the creative project site. Section 4.4 will explore more about it.



Figure 4.20 Remaining Pieces of Original City Wall at Xi Bian Men Wall Relics Park (Author)



Figure 4.21 Rebuilt Wall and Tower in Xi Bian Men Wall Relics Park (Author)

4.3.3.1.3 North Second Ring Road City Park and De Sheng Park

To welcome the 2008 Beijing Olympic Games, the government completed many projects, with the intent of establishing a good presence to the world. The North Second Ring Road City Park and De Sheng Park were built for this purpose in 2006. The two parks stand along the north city wall, in an area that dates from the Ming Dynasty. Thus, the themes of these two parks are about the city wall, history, and traditional folk custom.

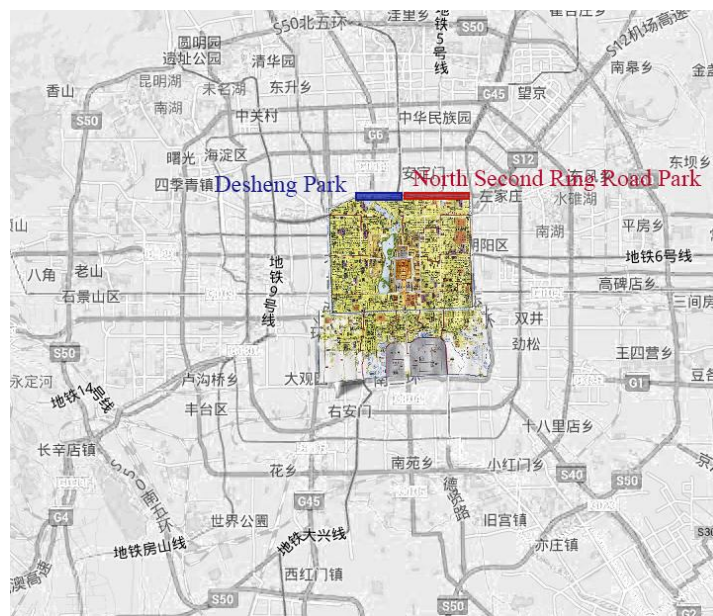


Figure 4.22 Location of Desheng Park and North Second Ring Road Park

In the magazine *Chinese Landscape Architecture*, the designers of the two parks describe the situation of the original sites, their new designs, and their significance. These two linear parks are located between the old city center and area of newly developed construction, along the busy Second Ring Road. The parks offer a green screen between the noisy Second Ring Road and the quiet traditional neighborhoods, provide comfortable leisure space for surrounding residents, and bring attention to the history of the lost sites.

The North Second Ring Road City Park is 2 kilometers long and 25 meters wide, with an area of 54,000 square meters. Zhu and Zhao state that the design is mainly to “find a solution to protect the ancient capital’s historic and cultural heritage, and create an overall historical and cultural regional environment through the systematic and orderly construction of concentrated green space.” The park includes a small plaza, cultural sculpture, and a children’s play area. To address the historical and cultural aspects, a long ornamental wall with folk custom features was built between the North Second Ring Road City Park and its southern neighborhoods. To emphasize the central north-south axis, a large sculpture of an ancient Chinese compass is located on the axis, pointing to the Forbidden City—the center of Beijing.



Figure 4.23 The North Second Ring Road Park in 2012 (Author)

Near the North Second Ring Road City Park, Desheng Park is 2.4 kilometers long and 15-28 meters wide, with an area of 50,000 square meters. The name “Desheng” comes from the nearby historical tower—De Sheng Men Arrow Tower—one of the three remaining historical towers. The entrance of Desheng Park is directed toward the De Sheng Men Arrow Tower, in which people can clearly see while sitting on an upper-level entrance plaza. “De Sheng” means triumphant return. In ancient China, generals and soldiers returning from victory would enter the city through the De Sheng Men gate. Thus, the park design mainly includes military elements, such as drum patterns, crescents (a stage to command and review soldiers), and sculptures. Wang, Jiao and Wang state in their article that Desheng Park acts as a buffer between the new and old city areas, clearly outlines the edges of historical Beijing, and blends traditional and modern elements. “The park highlights green ecology and focuses on the scenic composition of plantings, which gives the visitor an enjoyable visual experience in natural settings, while recalling memories of

the lost ancient city wall” (45).



Figure 4.24 Photographs of Desheng Park (Author)

These two parks along the north Second Ring Road address Beijing’s history and evoke the absence of city wall in the design. As green and leisure spaces, they are very precious in the urban center. Even though the few city remaining wall elements present little in the way of history, the North Second Ring Road City Park and Desheng Park are still good additions to building a green gallery along the Second Ring Road. The creative project can learn from them, and create a design with greater historic substance.

4.3.3.1.4 Imperial Palace Wall Relics Park

As mentioned in the historic background, the ancient city walls had four layers: the Forbidden City Wall, Imperial City Wall, Inner City Wall, and Outer City Wall (Figure 4.25). During the Ming Dynasty (1368-1644), common people were not allowed to enter or live inside the Imperial Palace. Only the government institutions were located inside the Imperial Palace and around the Forbidden City. During the Qing Dynasty, those in power

reduced the official institutions and allowed people to live inside the Imperial Palace (Dong Hua Liu Yun). Many famous persons lived in this area, which also had many shops. Thus, the original Imperial Palace area still holds many old buildings and former residences of well-known and celebrated figures.

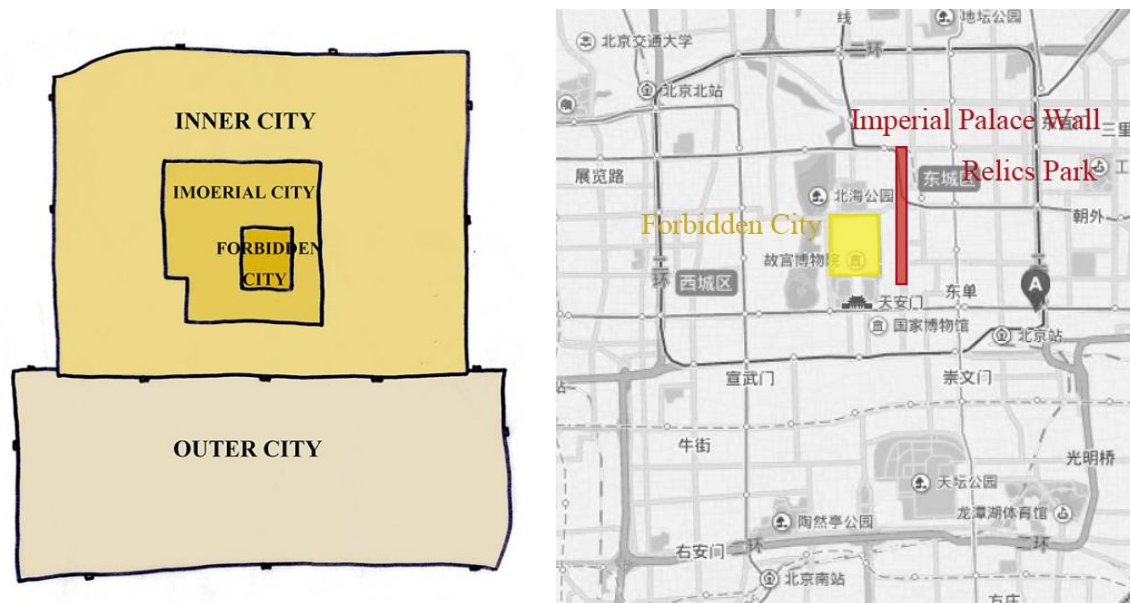


Figure 4.25 Four Layers of Old Beijing and Location of Imperial Palace Wall Relics Park

In 2001, to commemorate founding of the Imperial Palace, the government planned to develop a linear heritage park along the original site of the east Imperial City Wall (Figure 4.25). During the construction of this park, excavations revealed ruins of Dong An Men and its inner stone bridge from the Ming Dynasty. The government kept the ruins in place, and designed a recessed square to display this precious heritage. People walking around the grounds can clearly see the remaining Ming Dynasty ruins and feel the historic stories. For better public understanding of the wall's location and past form, a small section of the Imperial City Wall was designed and rebuilt at the north entrance of the park. Presently, this entrance plaza has become a landmark of this linear park, and is very popular for people

who like to dance at night. This whole Imperial Palace Wall Relics Park is 2.8 kilometers long and about 29 meters wide (Dong Hua Liu Yun). The two roads that border the park are very busy in the urban center. However, the neighborhoods love this free public park very much. Day and night, the park is full of people, walking, talking, visiting, resting, or dancing. The themes of the landscape in this park are also engaging. Cascades, sculptures, and reliefs all evoke Beijing's unique cultural environment and history.

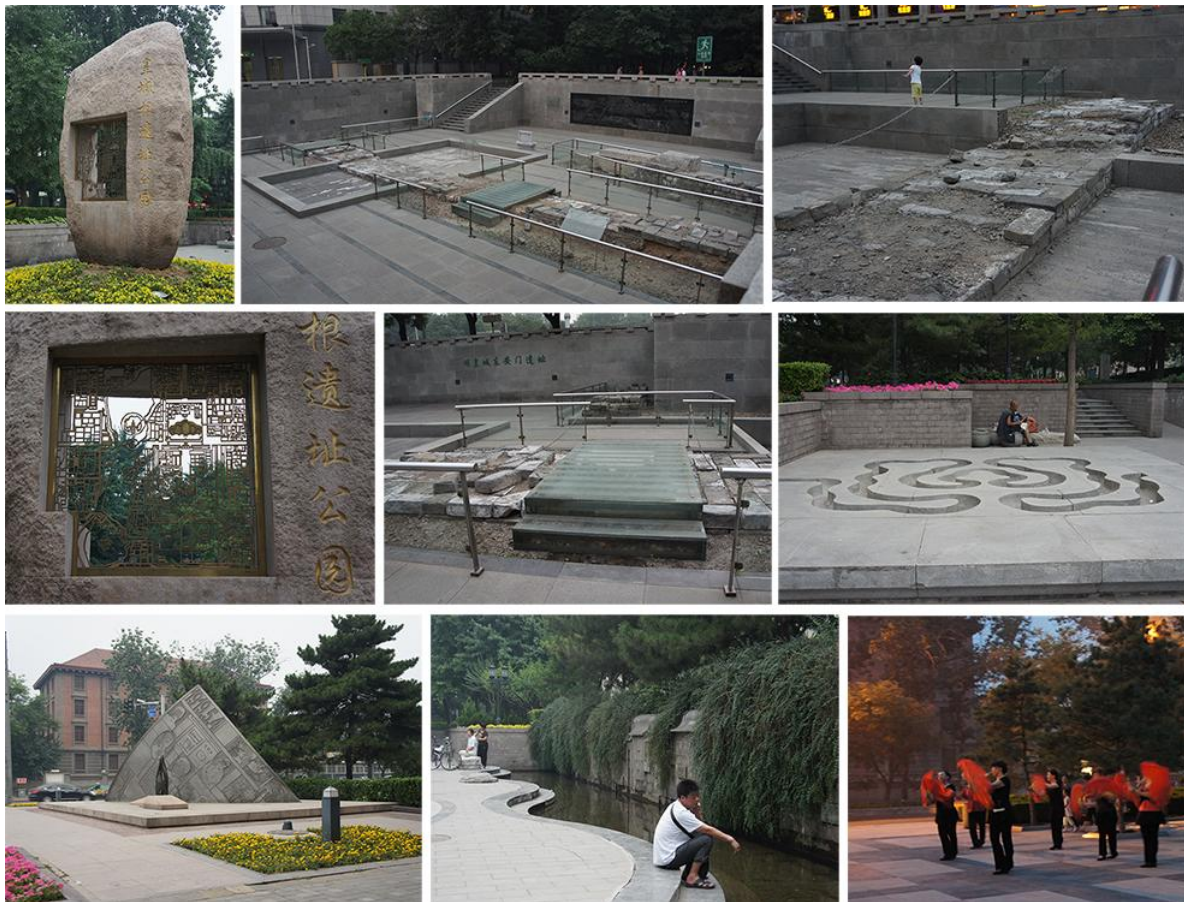


Figure 4.26 The Imperial Palace Wall Relics Park in 2012 (Author)

4.3.3.2 Historical Towers

4.3.3.2.1 Zheng Yang Men Towers

Zheng Yang Men, also called “Qianmen,” was the south gate of the inner city during the Ming and Qing Dynasties. Located in the south of Tiananmen Square, it was built on the north-south central axis of Beijing, 4648 meters from the Bell Tower (north end of the axis) and 3100 meters from Yong Ding Men (south end of the axis) (Zheng Yang Men).



Figure 4.27 Location of Zheng Yang Men (left), and its Current Situation in 2012 (right) (Author)

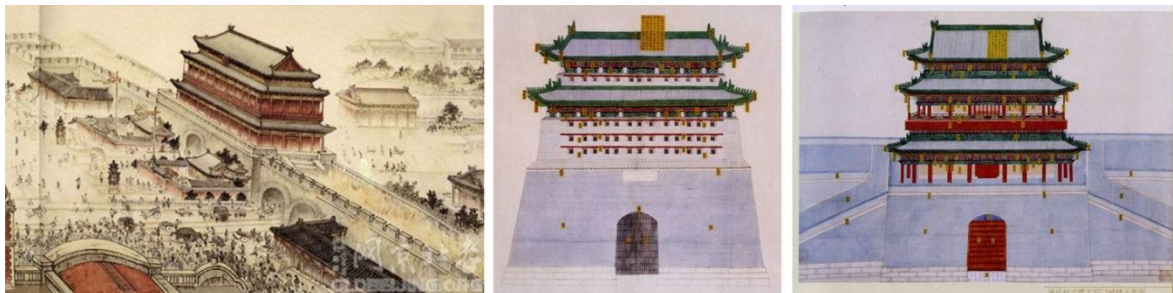


Figure 4.28 Qing-era Drawings of the Zheng Yang Men (BMACH 10)

As the largest and the most magnificent gate, Zheng Yang Men includes the Gate, Arrow, and Lock Towers, a Wong Cheng (defense enclosure), Side-walls, Temples, and other related construction. All these structures were integrated into a gate complex surrounded by an exterior moat. With a full width of 41 meters, depth of 21 meters and height of 43.6 meters, Zheng Yang Men was undoubtedly the largest gate in ancient Beijing. During the Ming and Qing Dynasties, the Arrow Tower was only opened when emperors offered sacrifices to God, or set out for a tour of inspection. Thus, Zheng Yang Men was also called the gate especially for the “palace carriages.” Internally, this shows respect and esteem for the throne, and externally, demonstrated the imposing power of Chinese nations. During the 1950s, most gate towers were pulled down or destroyed. Due to the Zheng Yang Men’s higher status in the hierarchy, the Arrow Tower and City Tower were preserved, but all the other structures including the Wong Cheng and temples were all pulled down (Zheng Yang Men). Right now, Qianmen East Street separates the two towers, and underground is the Subway Line 2, so rapid transportation flies back and forth through and below the historic area. Every year, numerous tourists from all over the world visit here, standing on the towers, enjoying views of modern Beijing from the ancient tower. After 600 years since its completion, Zheng Yang Men still stands erectly in Beijing as a witness of the wax and wane of feudal dynasties; the rise and fall of emperors, kings, generals and ministers; plus many other significant events that have influenced the development of Chinese history.

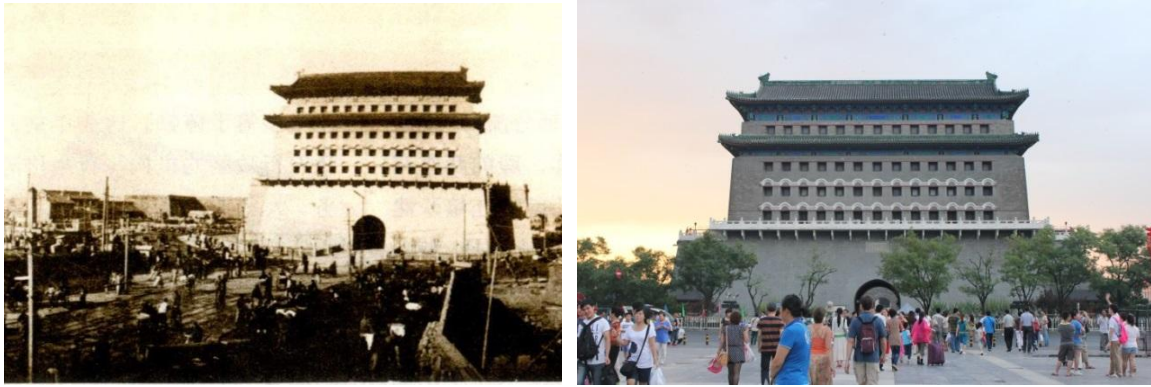


Figure 4.29 Zheng Yang Men Arrow Tower in 1915 (Wang 102) and 2012 (Author)



Figure 4.30 Zheng Yang Men City Tower in 1915 (BMACH 57) and 2012 (Author)



Figure 4.31 Bird-eye View of Zheng Yan Men in Early Republic of China (1912-1949) and in the Present Day (Lao Rong Shu)

Qianmen Street, also called Five Archways Street, has been Beijing's most prosperous street and historic market, with a large number of shops, many enduring for hundreds of years. It is an important source of Beijing's commercial and local culture. To better display the ancient structures around Zheng Yang Men, Qianmen Street was redesigned as a

pedestrian-only street. New Five Archways was built at the entrance of Qianmen Street, in front of the Arrow Tower (Zheng Yang Men). Many centuries-old shops have reopened here. Today, tourists visiting Zheng Yang Men walk through this commercial street to shop for traditional Chinese goods.



Figure 4.32 Qianmen Street in Late Qing, in the 1930s and in the Present (Hu 166)

Zheng Yang Men is the only gate whose Gate Tower and Arrow Tower remain intact. As the symbol of Old Beijing, it has witnessed the vicissitudes of history and will hopefully always stand there to witness the future and advancement of China.

4.3.3.2.2 De Sheng Men Arrow Tower

De Sheng Men was located west of the north city walls of the inner city. The Gate was built on the foundation of the Jiandemen Gate of the Yuan Dynasty. “De Sheng” in Chinese means noble ethics and triumph in homophones, and symbolizes the hope of victory and righteousness from wars. Thus, in ancient China, it was a tradition for soldiers on expedition to start off from De Sheng Men. The gate is 36 meters high, and includes the Gate Tower, Arrow Tower, Wong Cheng, and temples, etc. In 1915, Wong Cheng and Lock

Tower were pulled down for the construction of the loop city railway. The Gate Tower was dismantled in 1921. Currently, only the Arrow Tower survives as a public museum.



Figure 4.33 Location of De Sheng Men and A Current View (Author)



Figure 4.34 The Ancient De Sheng Men Arrow Tower (left), City Tower (center), and Zhenwu Temple (right) (BMACH 96)

Usually temples were built inside the Wong Cheng of city gates. Temple to the North God, also named the Zhenwu Temple, was built inside the De Sheng Men Wong Cheng. It was destroyed in the 1930s and rebuilt in 1992. The Arrow Tower is now used for interpretive and educational displays about the historic city wall. Zhenwu Temple, now rebuilt, has become the Beijing Numismatics Museum, displaying ancient Chinese coins.

Surrounded by busy transportation, the De Sheng Men looks quiet and lonely. This historic tower has lost its military purposes, and now has another function—a museum to display aspects of its former glory and history.

4.3.3.2.3 Southeast Corner Tower

Located in the Ming Dynasty Wall Relics Park, the Southeast Corner Tower is the only remaining corner tower of the inner city wall that dates from the Ming and Qing Dynasties. It is now used as a public museum covering the history of the city wall and present-day modern art.



Figure 4.35 Location of Southeast Corner Tower and the Current Setting (Author)



Figure 4.36 The Southeast Corner Tower in the Republic of China (BMACH, 88)

North of Southeast Corner Tower is one of the busiest transportation hubs in the region—the Beijing Railway Station. When the Ming Dynasty Wall Relics Park was completed in 2003, the Southeast Corner Tower became the most important landmark in the area. Climbing up the wall, a section of intact top surface was rebuilt to give access to the corner tower and the remaining structures, including the Duty Rooms, Iron Cannon, and the Flag Post Stone. The duty rooms were for soldiers to rest during their time while assigned guard duty. An iron cannon displays the typical armament of defense. During the Qing Dynasty, the Eight Banner troops defended the city. The Blue Banner guarded the area from Chongwenmen to Dongbianmen. The remaining stones are the tablet to hold the Blue Banner's flag. From the remaining structures, simple but vivid images show the lives of historic soldiers.



Figure 4.37 Southeast Corner Tower in the Republic of China (Southeast Corner Tower Museum) and A Present View in 2013 (Autor)



Figure 4.38 Current Layout of the Tower Upper Platform (Tower Museum)



Figure 4.39 Structures on the Top of Southeast Corner Tower Platform (Author)

This Southeast Corner Tower is the only area where people can climb up to the top of the wall to enjoy the views. It is the landmark in the Ming Dynasty Wall Relics Park and part of the creative project site that will be an excellent place for views down into the newly designed historical park. The design program will consider connections between the turret and the separated northern park. Historical footprints will be recorded in different ways in this project.

4.3.3.3 Conclusion

This creative project involves making modern public spaces with intact, fragmented, and some lost elements of the wall's heritage, plus related structures from the past and present. To better demonstrate the scope of the design, sufficient historic knowledge about the city and the wall, plus site investigations are necessary. This section has mainly explored remaining historical structures around Beijing's city wall from the Jin Dynasty to the Early Republic of China. The current situations of these remnants supply rich information for historic design and expression. Learning from these sites, and ways they enrich people's health and well-being, this creative project will incorporate elements of the historic landscape to integrate this site with other representations of the city wall. This is

significant for future connections between the city wall parks and historic spaces.

4.4 Site Selection Criteria

Research into the historical city wall's various conditions has informed selection criteria for a suitable site for this creative project. The only remnant from the Jin Dynasty has already been developed as a museum, and the city walls from the Yuan Dynasty have been designed as an important public park; and the more recent ancient dynasties, the Ming and Qing, while providing the greatest extent of historical fabric, is in a number of separate locations in modern Beijing. Consequently, the site for this creative project will be selected from a location having a wall or partial wall dating from the Ming and Qing dynasties. Investigating around the Second Ring Road—the original city wall location—identified three potential sites for investigation. The following section discusses the criteria for site selection.

4.4.1 Contexts of Three Alternative Sites

Figure 4.40 shows the three candidate sites: the northeast section of the Ming Dynasty Wall Relics Park (Site A), the site of the Xi Bian Men Ming Dynasty Wall Park (Site B), and the site of the South Central Axis Park (Site C). Contexts and potential design issues are elaborated below.

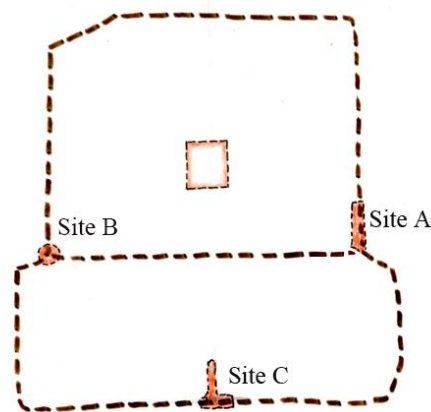


Figure 4.40 Three Site locations

4.4.1.1 Site A: Northeast Section of the Ming Dynasty Wall Relics Park

Figure 4.40 shows that Site A is located on the southeast corner of the original Inner City. Nearby are the two longest sections of the remaining Ming city wall, the Southeast Corner Tower, the Ancient Observatory, and a modified historical moat (Figure 4.41). Beijing Railway Station is 800 meters from the site and separates the two remaining wall sections. The southern section is better designed and attracts more people than the northeast part. The Southeast Corner Tower is an important landmark in this park. Nearby walls have been restored to allow people to climb up to the top and visit the tower museum.

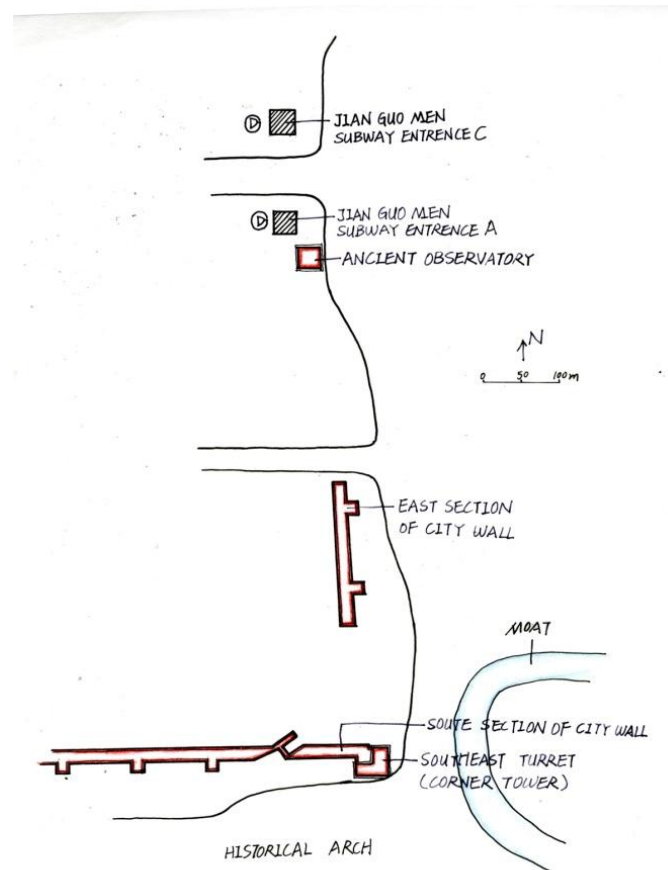


Figure 4.41 Historical Remnants of Site A and the Surroundings

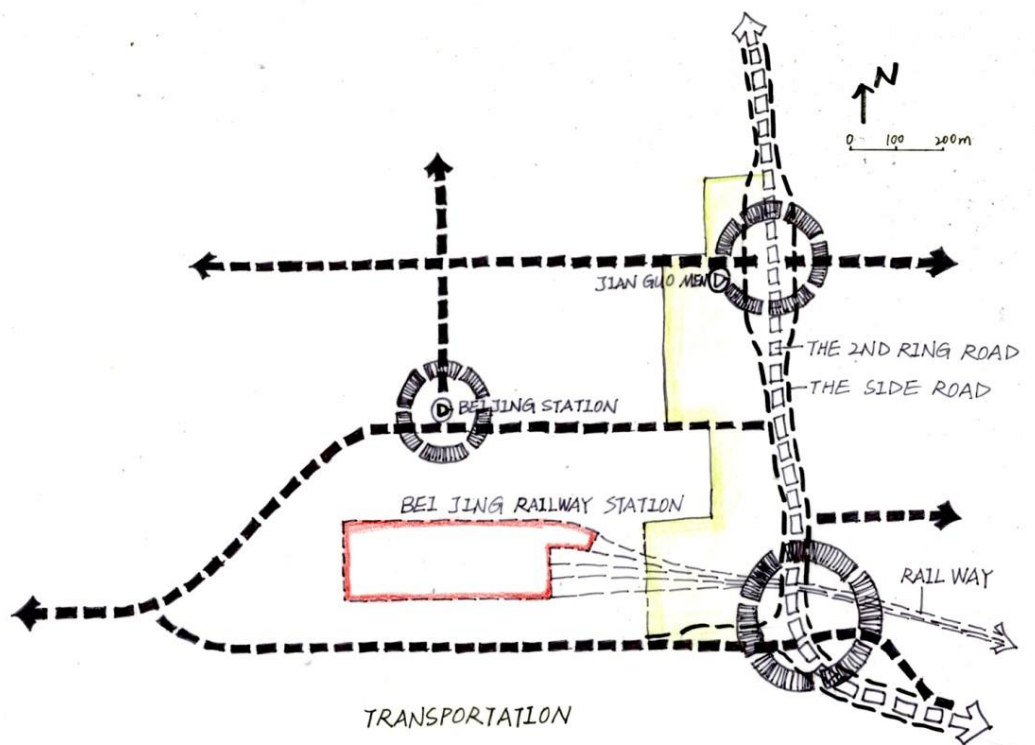


Figure 4.42 Transportation and Circulation in and Around Site A

Due to railway construction in the late Qing Dynasty and the early Republic of China, the wall structure of the remaining tower area is different from the original walls. An opening in the structure was designed as access for Jing-Feng Railway (built in 1903), and remains the main tourist access to the corner tower museum. Compared with the clean and beautiful south part of the wall, much construction waste has been discarded along the north of the wall. Immediately north of the railway, most houses and other buildings are abandoned. The traditional courtyard community west of the northern section of wall is in a poorly maintained condition. Transportation around Site A consists of the multi-track railway, the Second Ring Road, and subway stations. This area of complicated multimodal transit provides convenient access to the site, but also produces difficulties for site connections. Also, the Ming Dynasty Wall Relics Park has only one public restroom located on the south section near the tower. The potential design issues for Site A would be:

- Representing the missing city wall and its footprint
- Displaying historical stories and providing a venue for important events
- Connecting the two separated remaining walls
- Adding another public restroom in the northern section of the park
- Improving public open spaces in the park

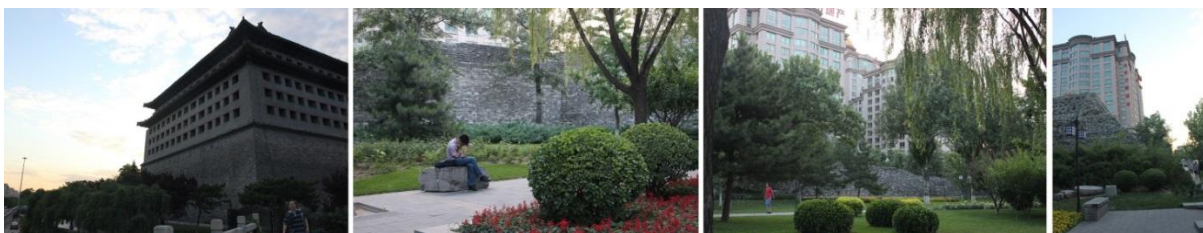


Figure 4.43 Contexts of Site A (Author)

4.4.1.2 Site B: Site of Xi Bian Men Ming Dynasty Wall Park

Located in the southwest corner of the original Inner City, Site B is currently used as a public park. The historic 100-meter wall was restored in 1987, but only two points allow visitors to observe the original historical wall surface (Figure 4.44). The west conditions of the wall are not good where the restoration was done, and some people are living in temporary shelters nearby. Atop the wall is a rebuilt watch tower which has been used as a temple but now seems abandoned. People can climb up the restored stairs and have an overview of the park and surroundings.

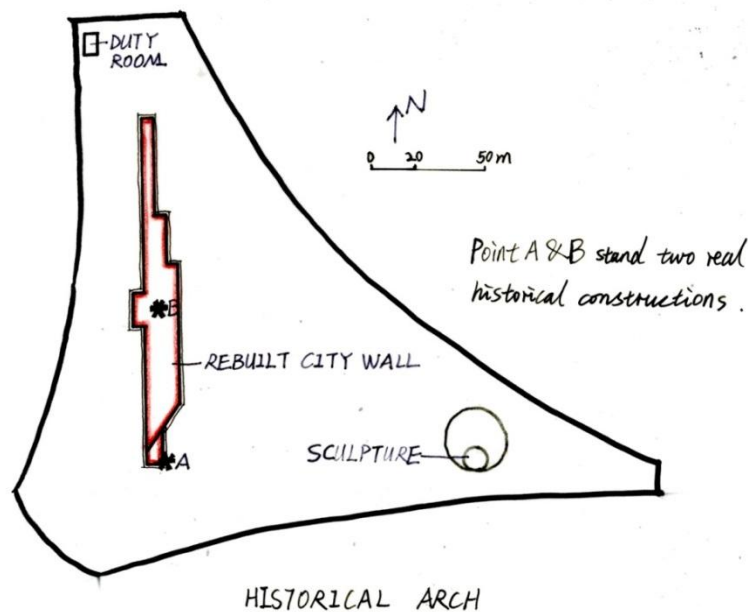


Figure 4.44 Historical Elements of Site B and Its Surroundings

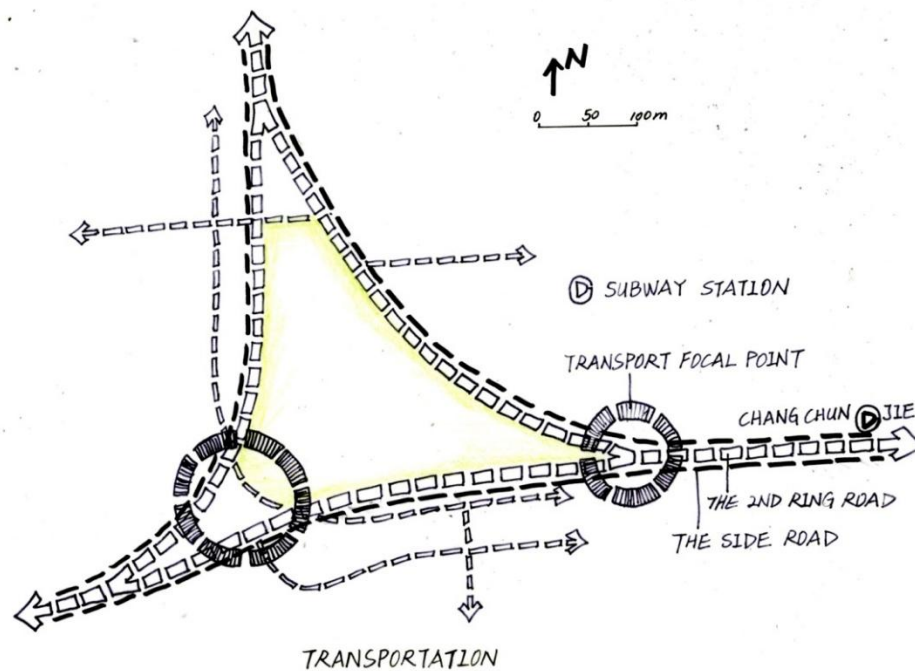


Figure 4.45 Transportation Analysis of Site B Surroundings

Xi Bian Men was a lower status gate of the Outer City during the Ming and Qing dynasties. The current area is surrounded by busy transportation, forming an isolated island. The park only has two entrances, which are both uncomfortable and not accessible to allow people to enter the park. If people want to enter from the south, they must walk through an underground pass. This is not safe for people coming with children. In the south entrance, a sculpture engraved with city wall structures serves as a landmark for this park. A duty room designed with a historical building style stands in the north entrance. The Xi Bian Men Ming Dynasty Wall Relics Park has only one public restroom in the south corner. The rest of the park is all green vegetation. The potential design considerations of Site B would be:

- Clearing the waste and extra modern structures from the west of the wall
- Reusing the top spaces of the wall to attract more people
- Adding safe connections and access to the park



Figure 4.46 Contexts of Site B

4.4.1.3 Site C: Site of the South Central Axis Park

Site C is located on the south end of Beijing's historical north-south central axis (Figure 4.40). The south end of the site is the rebuilt Yong Ding Men Tower—once the south gate of the Outer City—an important landmark in ancient Beijing. The landscape surrounding the tower has poorly designed paved squares with different functional zones. People can ascend to the upper level and enjoy an excellent city view from the tower. Sights include rapidly moving modern transportation, a narrowed historical moat, towers in the Temple of Heaven, surrounding neighborhoods, and the strong central axis.

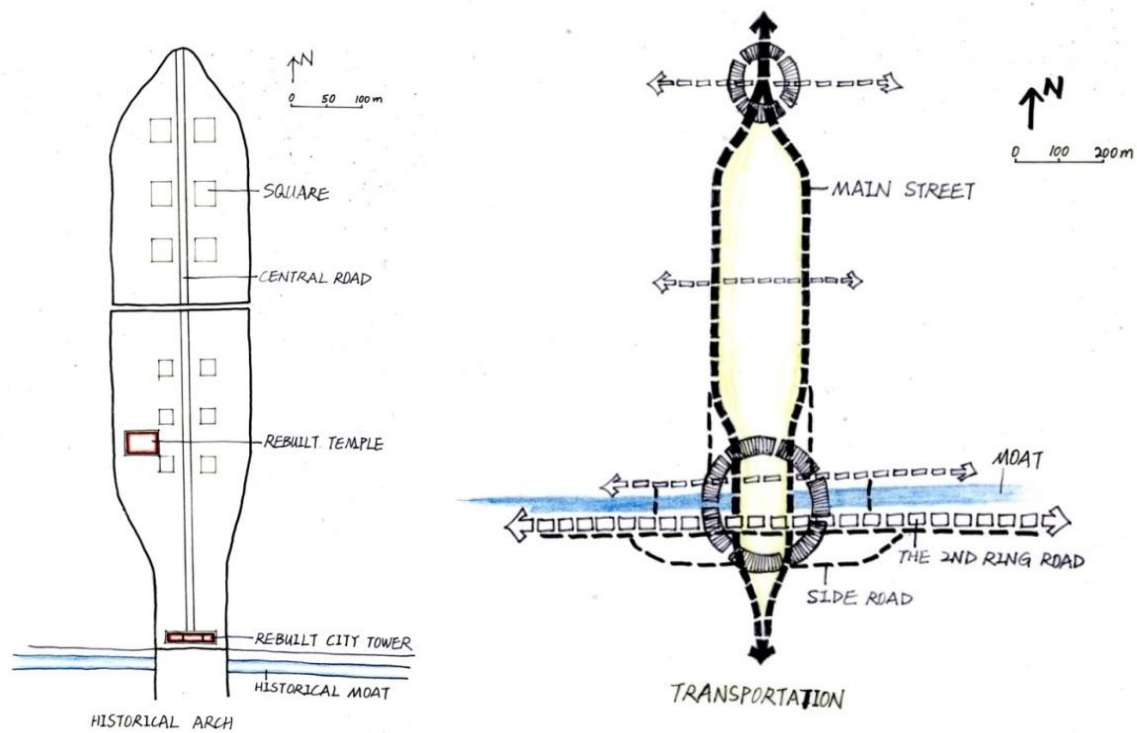


Figure 4.47 Historical Aspects of Site C and Its Transportation

The surrounding area along the historical moat is designed as a Waterfront Park. In the site, one rebuilt temple is located in the southwest portion of the park, near a public restroom. To emphasize the central axis, the main axis of the park is designed straight and wide, and connected with symmetrical square plazas on the two sides. Near Site C, the Temple of Heaven and the Beijing Ancient Architecture Museum stand on the two sides of the central axis. Consequently, transportation around this area is convenient and provides access to the site. Compared with the strong axial expression, little city wall information is present in this park. The potential design issues of Site C would be:

- Interpreting the missing city wall with the rebuilt tower
- Providing educational material about the historical conditions around the current tower

- Strengthening the current square design to add more city wall history
- Adding connections to the moat and surrounding historical landmarks



Figure 4.48 Outside the Current Yong Ding Men Tower



Figure 4.49 Context of Site C (Author, Fong)

4.4.2 Discussions of Criteria

A program and standards are needed to evaluate alternative sites. Three aspects guide the discussion of criteria: historical elements, surrounding environment, and site design potential.

Historical Elements

- Does the site have any existing historical elements (real > rebuilt)?
- Is the historical construction meaningful to Beijing citizens?
- Do the elements involve Beijing history and events?

Surrounding Environment

- Does surrounding transportation help the site to be accessible based on safety considerations?
- Does the site have potential for design that addresses conflicts between modern and traditional environments?
- Does the site attract and/or serve nearby community residents?
- Does the site have tourism potential?

Site Design Potential

- Does the site have distinctive landforms which could be used for the design?
- Does the site have derelict areas which could be improved or supply inspiration for the development of the design?

Table 4.4 summarizes the possibilities of all three sites. The number of stars ★ show the positive potential, and the site with most stars is the most suitable selection.

- Site A: Northeast Section of Ming Dynasty Wall Relics Park (14 stars)
- Site B: Site of Xi Bian Men Ming Dynasty Wall Park (6 stars)
- Site C: Site of South Central Axis Park (10 stars)

From the examination of the alternative sites, Site A offers the most possibilities, which means it is the most suitable site for this creative project. Thus, the currently undeveloped northeast section of the Ming Dynasty Wall Relics Park will be the selected site. The following section will discuss the analysis of the site and its surroundings.

Table 4.4 Site Selection Statement

Criteria		Site A		Site B		Site C	
Historical Elements in Site and Surroundings		★ ★ ★	<ul style="list-style-type: none"> Two sections of remaining city wall from Ming Dynasty Historical Southeast Corner Tower Ancient Observatory (former gate tower in Yuan Dynasty) and its Courtyard structures Historical moat nearby 	★	<ul style="list-style-type: none"> Two small sections of preserved historical city wall Rebuilt city wall 	★ ★	<ul style="list-style-type: none"> Rebuilt Yong Ding Men city tower (former south gate of the Outer City) The Temple of Heaven and the Altar of the God of Agriculture (now Beijing Ancient Architecture Museum) Historical moat nearby
Surrounding Condition	Public Transport	★ ★ ★	<ul style="list-style-type: none"> Beijing Railway Station Jian Guo Men Subway Station Along the 2nd Ring Road 	★	<ul style="list-style-type: none"> Near Chang Chun Street Subway Station 	★ ★	<ul style="list-style-type: none"> South section of Central Axis Convenient bus system No subway station nearby
	Surrounding Environment (10-min walk)	★ ★ ★	<ul style="list-style-type: none"> Traditional courtyard neighborhood; Modern buildings along the 2nd Ring Road Hotel and hospital nearby Embassy area nearby 	★	<ul style="list-style-type: none"> Isolated focal point surrounded by 2nd Ring Road traffic; New community nearby 	★ ★	<ul style="list-style-type: none"> New community nearby Hotel and hospital nearby Near the Temple of Heaven and Altar of the God of Agriculture
	Tourism Potential	★ ★	<ul style="list-style-type: none"> Along the 2nd Ring Road, near central Beijing 	★	<ul style="list-style-type: none"> Isolated area even for nearby neighborhood 	★ ★ ★	<ul style="list-style-type: none"> Near the Temple of Heaven South Central Axis with rebuilt tower attracts tourists
Site Design Potential		★ ★ ★	<ul style="list-style-type: none"> Represent the missing city wall and its footprint Display historical stories and important events Connect the two separated remaining walls Improve public open spaces 	★ ★	<ul style="list-style-type: none"> Clear the waste and extra modern structures west of the wall Reuse top spaces of the wall to attract people Add safe connections and accesses to the park 	★	<ul style="list-style-type: none"> Present missing city wall with rebuilt tower Display historical conditions around the current tower Strengthen current square design with city wall information Add connections to the moat and surrounding historical landmarks

4.5 Site Location and Boundary

The proposed site is in the northeast part of the Ming Dynasty Wall Relics Park, which was in the southeast corner of the Inner City during the Ming and Qing dynasties. Right now, this area belongs to East City County of central Beijing. Historically, the north terminal of the Jing-Hang Great Canal was in the east side of this corner, which has resulted in the current busy transportation and concentration of commercial businesses. Goods from all over the nation were transported from the nearby terminal into Beijing City. Similarly, the current Second Ring Road is also one of the busiest arteries in Beijing. The site is bounded by the Second Ring Road (east), a traditional courtyard neighborhood (west), the Beijing Railway East Street (north), and the Beijing railway (west) (Figure 4.50). The 5-acre site is 70 meters wide and 300 meters long. The design will focus on the selected site, but also explore the surroundings with historical connections and future design possibilities. Consequently, the site analysis will consider more about the surrounding conditions, and offer potential design connections for this creative project.

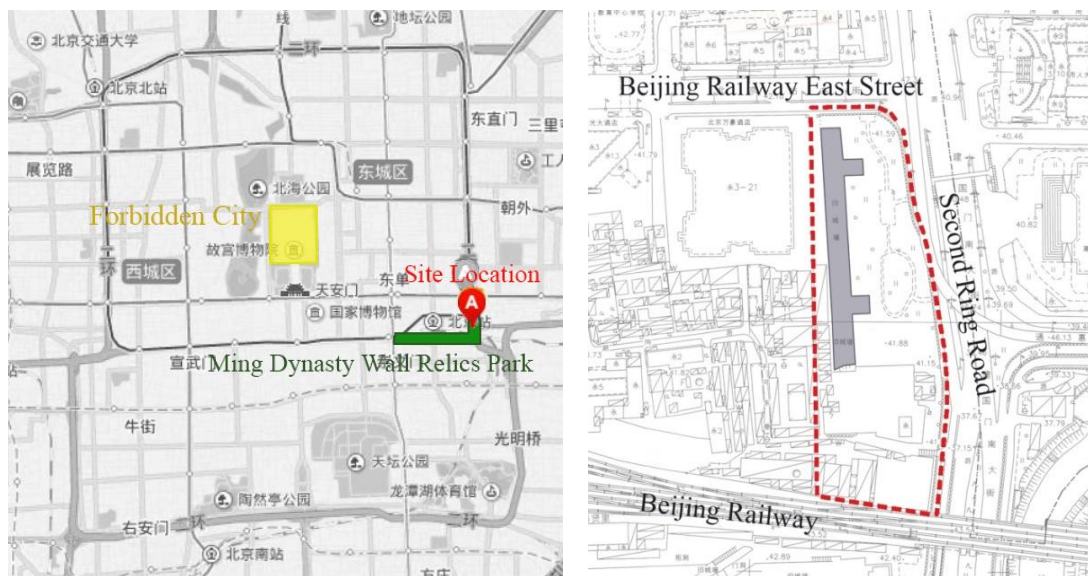


Figure 4.50 Site Location and Boundaries

4.6 Historical Context of the Site

Since the Yuan Dynasty built Dadu, the city walls have changed through dynasties and eras. Research about diverse dynasties informs the historical maps in Figure 4.51. The scales of the older map are not as precise as those of modern maps which have the benefit of high-technology. However, they still show the relationships between the city wall and surrounding structures. These maps show that the city wall structures during periods from the Ming, Qing and Republic of China did not change much compared with the current site map. The surrounding neighborhoods changed little from Ming to Qing Dynasty. The figure-ground study of the Republic of China shows new constructions in the southeast corner area. Surrounding neighborhoods have moved more inside the wall, and Figure 4.51 shows the footprint of that era. The openings through the wall were specially constructed for the railway. The pattern shown in the figure-ground is influenced by new modern technologies from western countries. After the extensive demolition of city walls during the 1950s and ongoing rapid urban development, the city wall structures are not obvious among crowded modern constructions, and thus have been omitted from maps. The four diagrams in Figure 4.51 show how the moat also changed with dynasties. The current moat has been reconfigured by urban development.

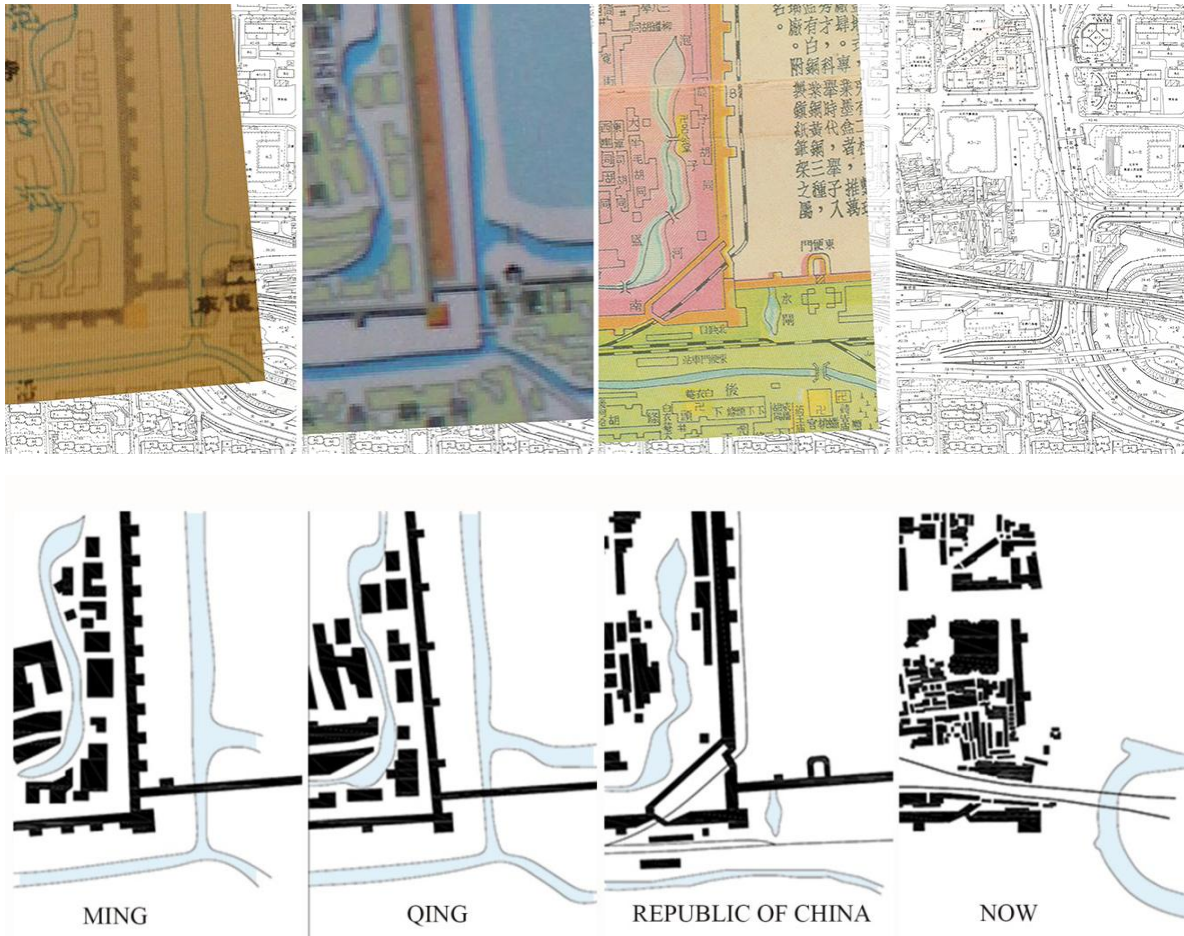


Figure 4.51 Historical Maps and Figure Grounds during Successive Dynasties

4.7 Surrounding Land Uses

Analyzing land uses in the larger area surrounding the project site, the diagram in Figure 4.52 shows the nine current land uses. Green spaces include public parks, gardens, and roadside green belts. The project site serves nearby neighborhoods, which include high-density apartments, low-density traditional courtyards (Hutong), and high-density mixed use of residential and commercial buildings. Commercial uses surrounding the site are mainly luxury hotels and restaurants. The purple color in Figure 4.52 shows multiple institutions around the site, including schools, an academy of social sciences, an educational museum,

governmental agencies, the supreme people's court, and the ICT (Information and Communications Technology) building. Vacant lots and buildings are located along the railway near the site. This section explores significant influences of the surrounding land uses, and examines design inspirations and potential opportunities.

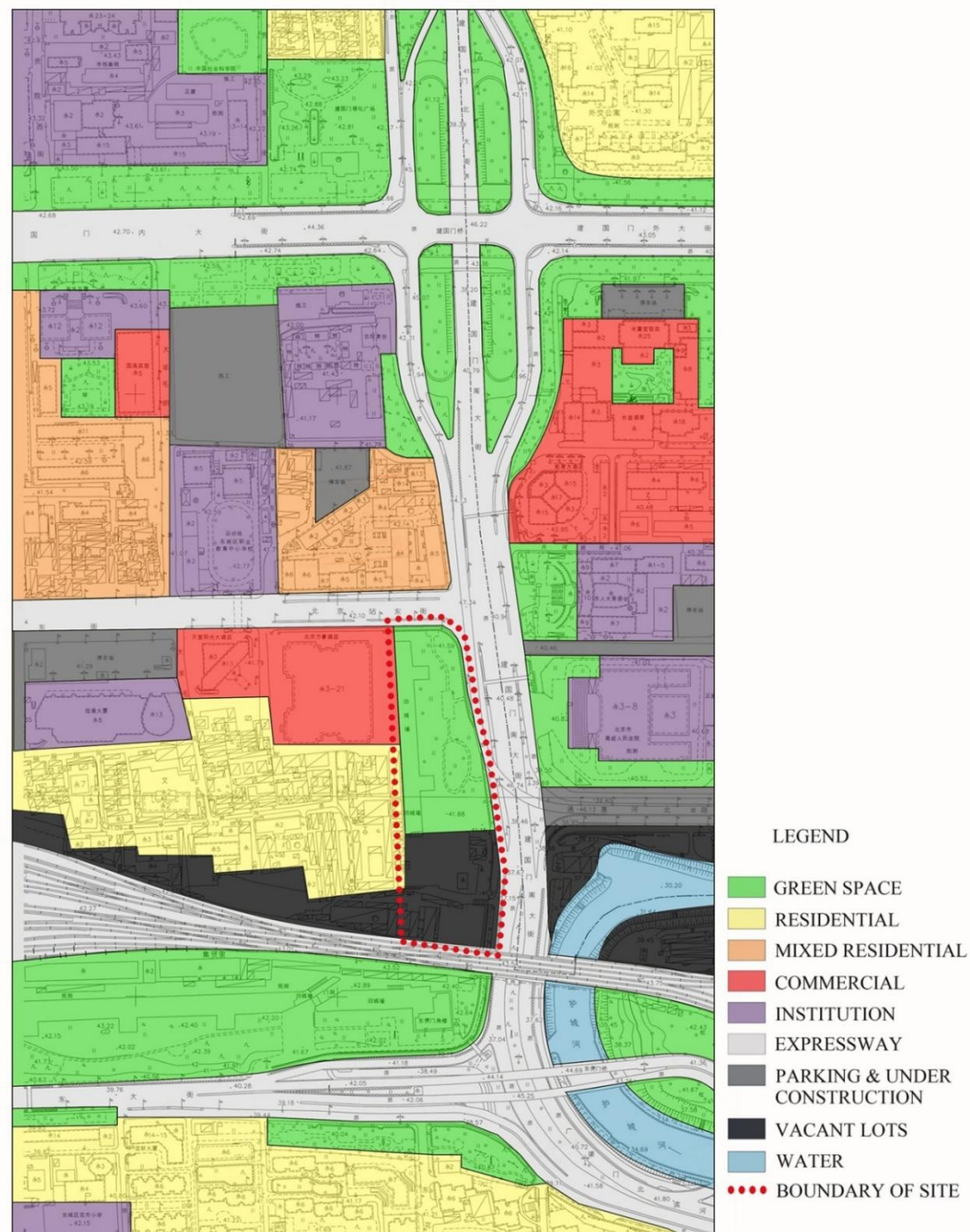


Figure 4.52 Site Location and Surrounding Land Uses

4.7.1 Historical Landmarks and Construction

The creative project focuses on history and heritage. Thus, exploring the remaining historical structures is important to the site analysis. Besides the two sections of remaining city walls, one block north of the site is the Ancient Observatory. Discussed in previous sections of this chapter, it was constructed on the foundation of the southeast corner tower from the Yuan Dadu city wall. Consequently, the observatory tower stands on the footprint of the historical city wall. Beside the historical tower is a traditional courtyard with multiple yards. During ancient times, this courtyard served as the observatory office. Now, eight original historical astronomical instruments are exhibited on top of the tower. While walking up the stairs, visitors can clearly see the moat and the Southeast Corner Tower. Historical analysis maps show changes to the areas of water. The moat seen today has been significantly reconfigured by urban development.

Historical resources show that the north terminal of the Grand Canal was once located in the northeast of the Southeast Corner Tower as a grain transportation wharf, and the Immortal Peach Palace was located south of the Southeast Corner Tower. Along the ancient west-east streets outside this temple, the Immortal Peach Temple Fair has been celebrated every year. In Figure 4.53, the dashed circle and rectangular outline estimate the locations of these two historical structures. For future design opportunities, investigations into the surrounding historical landmarks offer potential connections between these now-separated elements, especially along the footprints of the original city walls.

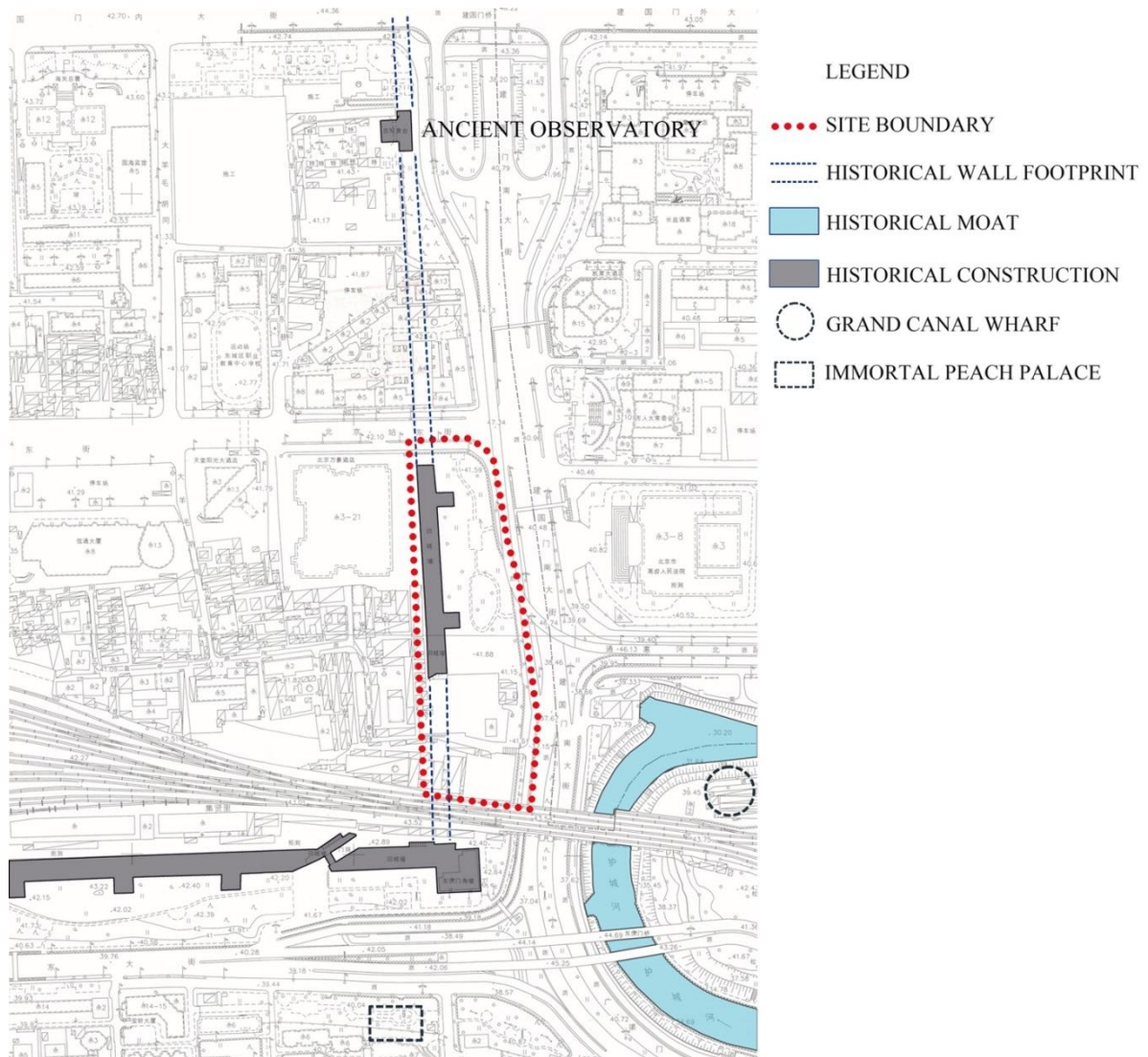


Figure 4.53 Historical Structures around the Site



Figure 4.54 The Ancient Observatory Tower (left), the Southeast Corner Tower (center), and the Historical Moat (right) (Author)



Figure 4.55 Views from the West of the Eastern Moat (Author)

4.7.2 Surrounding Green Spaces and Potential Future Opportunities

Green Spaces around the site include public parks, roadside greenbelts, expressway greenbelts, and enclosed gardens (Figure 4.57). Roadside greenbelts supply green spaces for pedestrians, plus help to screen noise and pollution. Expressway greenbelts are usually built to separate two directions of expressways and urban vehicular roads. These can reduce pollution, offer landscape views, and increase urban green spaces, but usually pedestrians cannot enter these areas for safety reasons.

The government once proposed to keep and build greenbelts along Beijing's ring roads, to maintain a certain green space ratio in the urban center. However, rapid urban development has increased population growth and land needed for expansion, which has resulted in a sharp decrease of green spaces in the urban center. The greenbelt along the Second Ring Road was originally required to maintain a width of 100 meters. Figure 4.57 shows the current situation, which has become disconnected and is less than the required width.

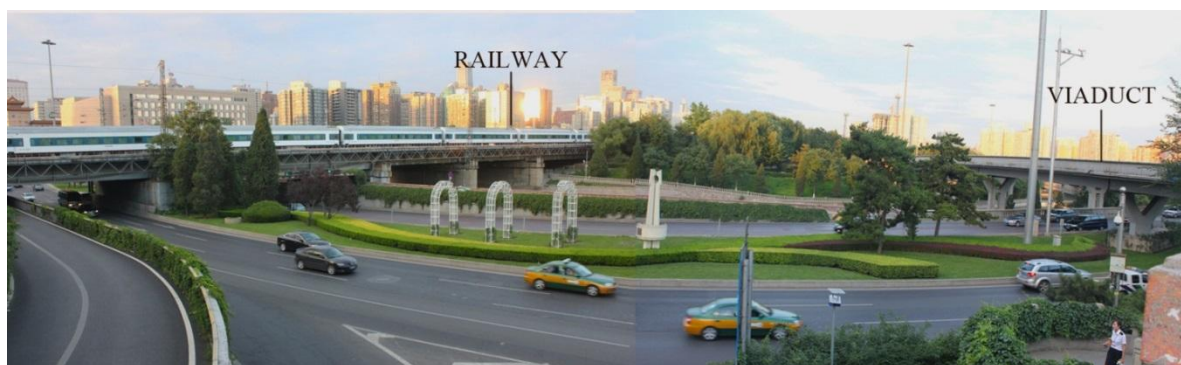


Figure 4.56 Expressway Greenbelt outside the Southeast Corner Tower (Author)

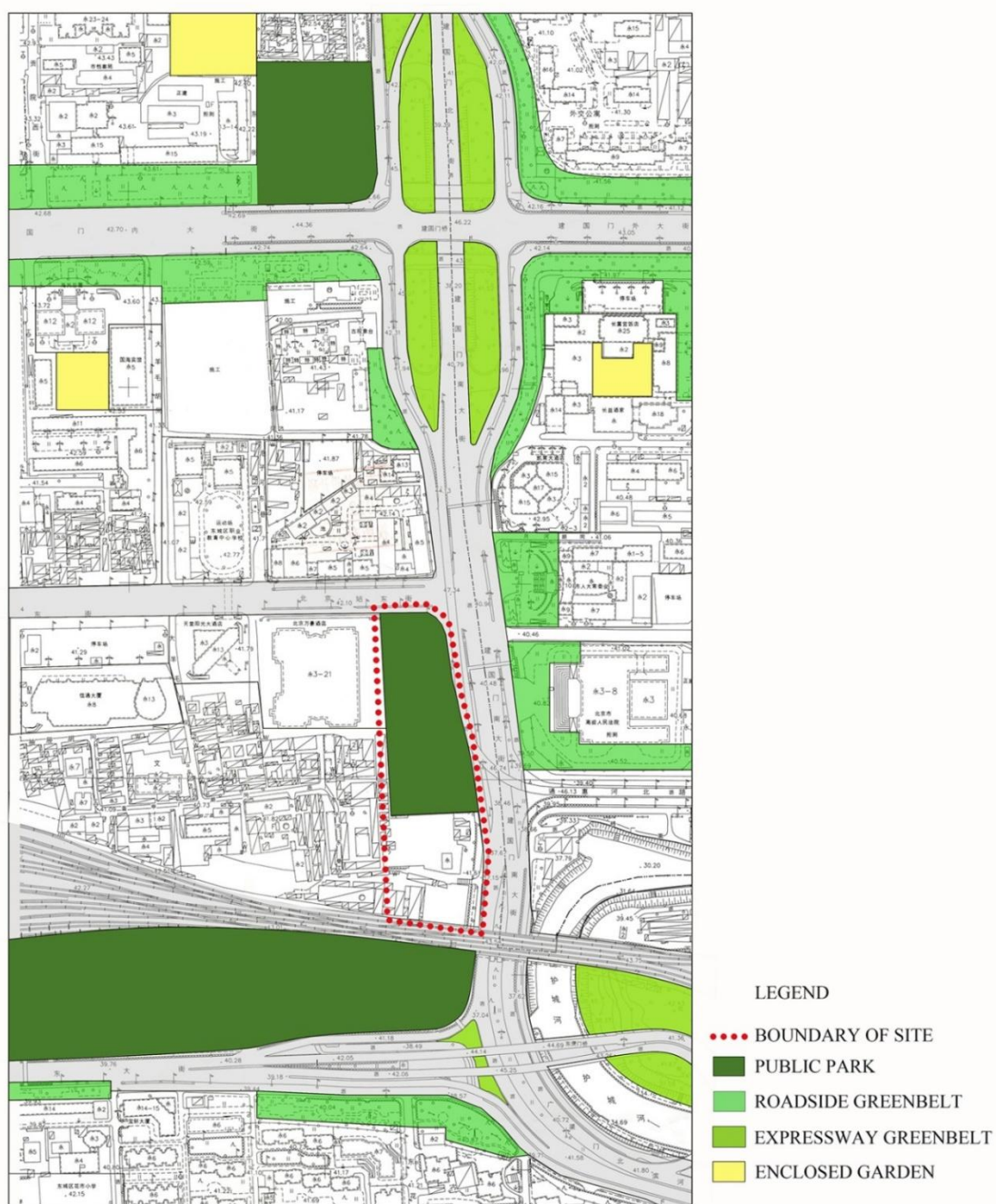


Figure 4.57 Green Space Land Uses around the Site

4.7.3 Height of Surrounding Buildings and Views

Besides the historical structures around the site, there are more modern buildings due to rapid urban development. Figure 4.58 shows four height levels in the surrounding area. One story is considered as 3 meters. The first level—the lightest blue—shows buildings under 3 stories. The second level shows buildings with a height between 4 to 10 stories. The third level indicates buildings between 10 to 20 stories. The darkest blue shows surrounding high-rise buildings above 20 stories. Thus, the potential for elevated views from surrounding high buildings are shown in the diagram, which can influence design perspectives.

The current remaining city wall is only 6-8 meters high, compared to its 10-12 meter original height. The Southeast Tower is 30 meters high. Visitors at the top of the tower can overlook the southern project site, which suggests that the design should consider elevated views from the south. The two highest buildings are a luxury hotel with 25 stories to the northeast (Figure 4.59), and the 21-story Marroitt Hotel to the west. People in the higher stories of these two hotels can clearly overlook the site from different directions, which suggests that appealing views of the project site from these vantage points should be considered. Figure 4.61 shows the current ground view from east of the Second Ring Road toward the site. Besides diverse height levels of surrounding buildings, pedestrian bridges and viaducts increase the complexity of vertical layers around the site. Balancing the complex layers near the site will be a design challenge.

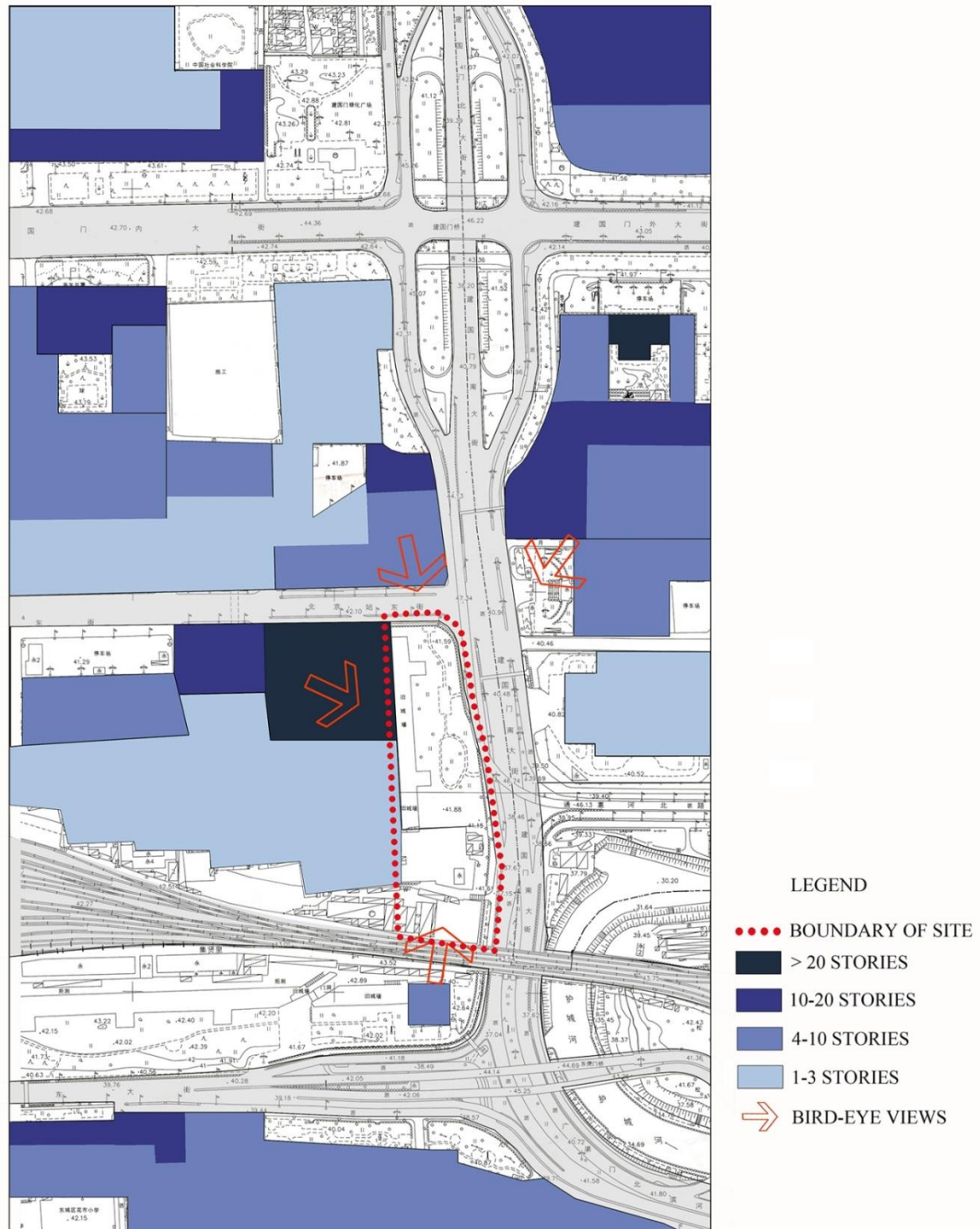


Figure 4.58 Surrounding Height Levels and Potential for Bird-eye Views from High Points



Figure 4.59 Ground View to the East of the Site (Author)



Figure 4.60 View into the Site from the East Pedestrian Bridge (Author)



Figure 4.61 Elevation View into the Site from East of the Second Ring Road (Author)

4.7.4 Surrounding Residential Land Uses

Residents of nearby neighborhoods are the most important visitors to public green spaces. Studying the residential areas around the site can help develop design strategies to attract nearby residents. Figure 4.62 shows three different types of residential land use: low-density, high-density, and mixed high-density. Among these, the low-density area is a traditional

courtyard neighborhood (Hutong), with most buildings one or two stories. The high-density area is modern apartments. Most are 4 to 10 stories high, and some might be higher than 10 stories. This is the most common type of building in current Beijing communities. Mixed high-density means buildings are used both for commercial and residential. Usually the first floor is used for retail or commercial, and the stories above are used for residential. In some dense commercial areas, such mixed-use buildings are very common and popular. The labeled residential areas are all within a 10-minute walking distance from the project site, so people living in these areas are all potential visitors, requiring convenient and accessible pathways to allow them to easily enter the site.

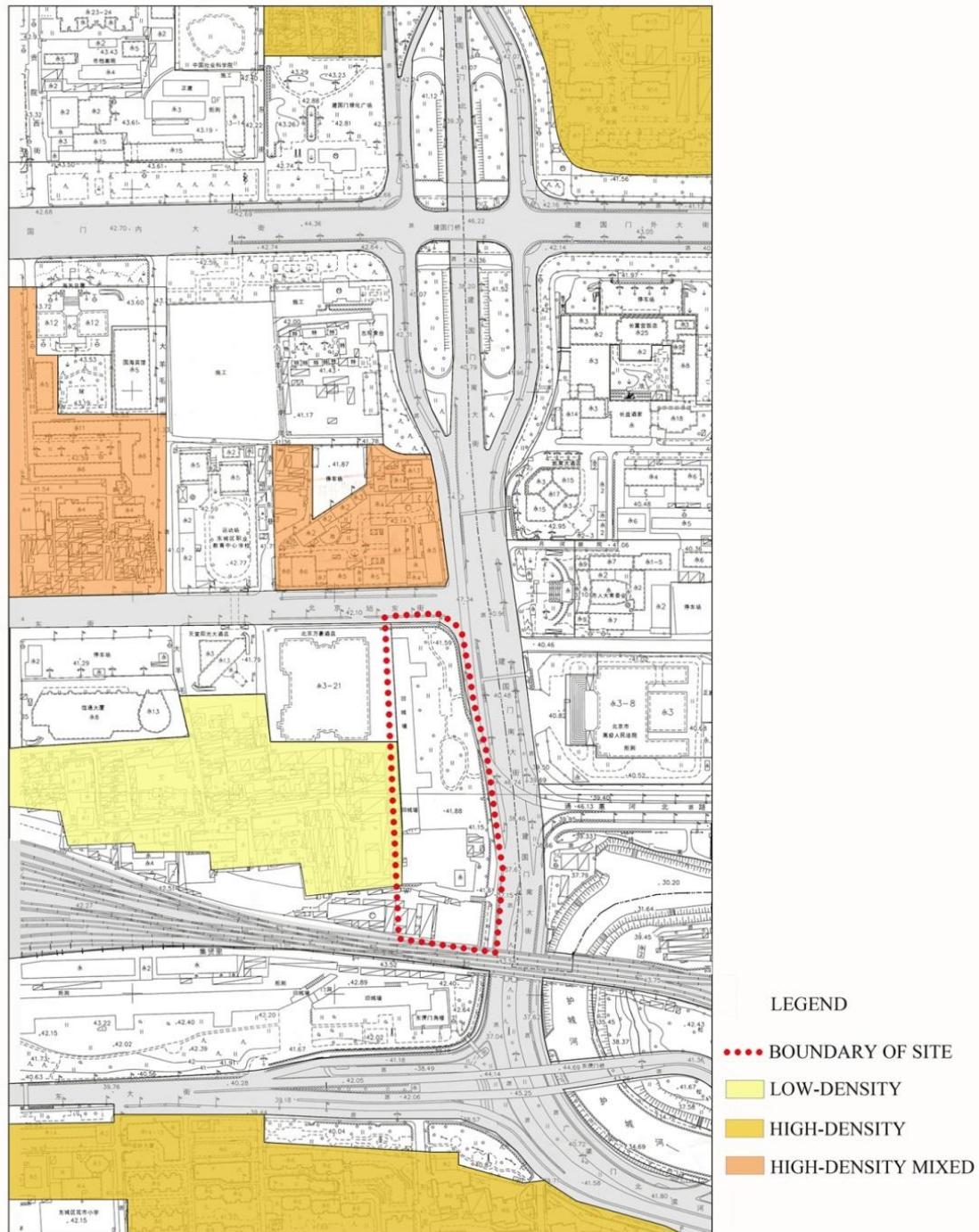


Figure 4.62 Residential Land Uses around the Site

4.7.5 Surrounding Institutions within 5-minute Walking Distance

Multiple structures are located around the site within a 10-minute walking distance (800 meters). Due to the complicated transportation and vehicular traffic, Figure 4.63 shows institutions within 5-minute walking distance (400 meters) to the site. All these institutions are concentrated in the northern part, which is more accessible to the site than the southern area. This means that more people from these areas will potentially visit the project site. Consequently, the northern entrance should be widely open to the public. Suitable design strategies should also address possible requirements from these areas.



Figure 4.63 Institutions within a 5-minute Walking Distance to the Site

4.8 Transportation

The site of this creative project is located in an area of extremely complicated transit routes that include the rail system, multiple levels of freeways, subways, and buses. Besides the nearby Beijing Railway Station, there are two other busy intersections along the Second Ring Road. Overhead viaducts are built to satisfy the movement needs for streams of vehicles and people.

The south boundary of the site is the Beijing railway, which separates the two sections of the remaining city walls. South of the Ming Dynasty City Wall Relics Park is Chongwenmen East Street, which is outside the original south city wall area of the Inner City. The name of the street comes from the nearby gate—Chong Wen Men. The east boundary of the site is one of the busiest city roads in Beijing—the Second Ring Road. East of it is the remaining historical moat. In ancient China, the north terminal of the Jing-Hang Great Canal was located here. The area west of the site contains traditional Hutong courtyard neighborhoods, isolated among the modern high-rise buildings. The north boundary of the site is the Beijing Railway Station East Street. Subway Line 2 was built along the underground levels of this street, and the Second Ring Road was built above it. One block south of the Beijing Railway East Street is the Jianguomen Inner Avenue. The Jianguomen subway station has multiple entrances and is located at the crossing of Jianguomen Inner Avenue and the Second Ring Road. Jianguomen is also the name of the nearby gate.

Even though the city wall has been removed, its influences still affect Beijing City more than might be expected. Most road and street names along the original wall area come from the nearby gate names as well as the underground subway stations.

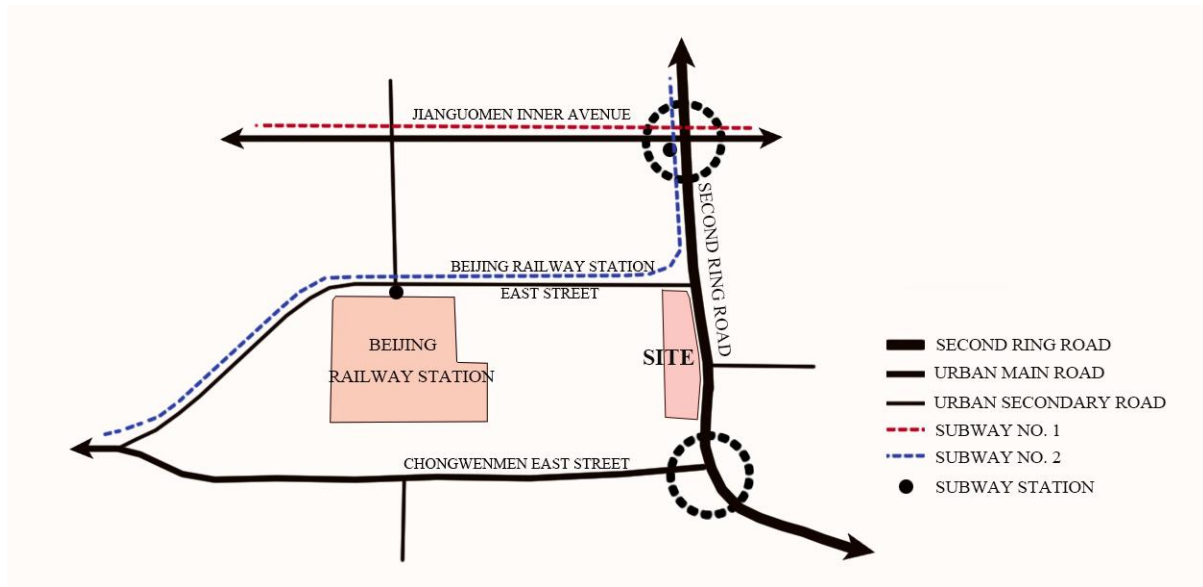


Figure 4.64 Transportation throughout the Larger Area around the Site

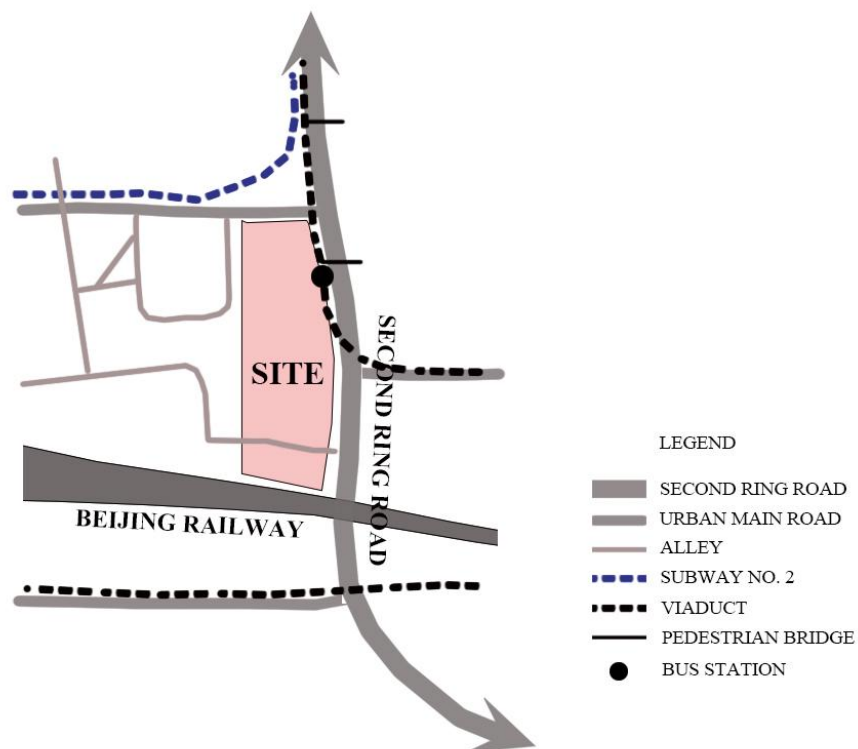


Figure 4.65 Transportation Details Immediately Surrounding the Site

Besides the busy Second Ring Road, two overhead viaducts and two pedestrian bridges are near the site. One public bus station is located to the northeast beyond the site, and one pedestrian bridge near it supplies convenient access for people who want to change buses and

cross the Second Ring Road (Figure 4.66). Houses and buildings along the railway within the site are mostly abandoned or vacant and in bad condition. Figure 4.67 shows the current situation of southern boundary. New design application must be considered to balance the dangerous railway versus enjoyable public spaces.



Figure 4.66 East Boundary along the Second Ring Road (Author)



Figure 4.67 South Boundary from the Southeast Corner Tower (Author)

4.9 Topography

Throughout the generations, the project site has changed dramatically with urban development. Topography throughout the site and surroundings area is complicated by multiple elevations. In general, site elevations gradually step down from south to north. The project site is at a much higher level than the Second Ring Road. Along the east boundary of the site, a retaining wall reduces from four meters at the south end of the site to one meter

high at the north end, gradually reaching the level of the plane of the Second Ring Road.

Figure 4.68 shows seven levels of height in the general topography around the site. The darkest three levels separately show the overhead railway and viaducts to the east and south of the site. Analyzing the existing topography helps to reconfigure the landform with design requirements and functional needs.

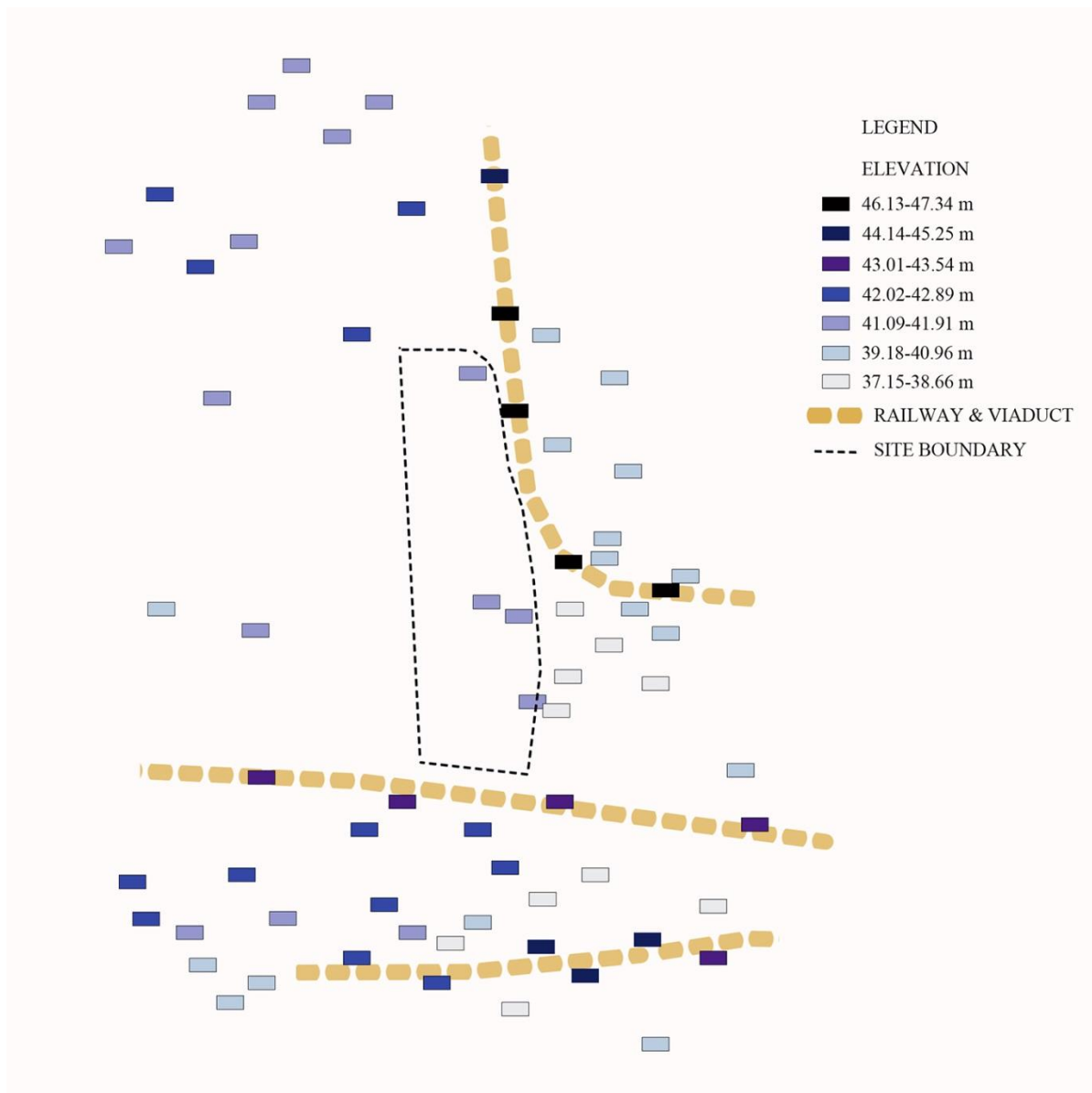


Figure 4.68 Topography around the Site

4.10 Site Contexts Summaries

After examining the larger area surrounding the project site, potential design constraints emerge that will need to be addressed:

- Footprints of ancient structures will inform the design;
- Potential relationship adjacent to and near the site will be considered for future connections, including green spaces, historical landmarks and other considerations;
- Sectional conditions with the surrounding vertical structures will be considered to connect the design with its context and multiple viewing opportunities;
- Clear and convenient access is necessary to attract visitors;
- The nearby context will be addressed, such as vacant lots along the railway that can be cleared and developed into functional zones conforming to design needs.
- Conditions in the traditional Hutong will be improved and made into suitable living environments.

Considering the larger area requires engaging visitors with appealing views from the nearby tall buildings but especially from the Southeast Tower, to draw people on the ground, while also celebrating beautiful design patterns. Consideration of the surrounding land uses will help develop meaningful program requirements for the design and offer inspiration opportunities.



Figure 4.69 Main Site Contexts (Author)

4.11 Strengths, Problems and Opportunities

This project site contains 800-year-old city walls, traditional courtyard neighborhoods, and new modern structures. Conflicts between historical and modern needs can produce problems, but can also provide inspiration and opportunities that can improve design. This

following section explores the site's existing strengths and problems, plus potential opportunities for developing of a program for the site design.

4.11.1 Strengths

- The site retains the precious historical artifacts of the city wall structures. Even though parts are broken in places, they speak eloquently of the site's 800-year history.
- The site has witnessed numerous historical events through different dynasties. These stories can be made more visible through displaying of historical footprints of structures that no longer exist.
- The Hutong are an important dimension of Old Beijing near the site. The relationship between these traditional neighborhoods and the city wall demonstrates endurance of that which is small and local, but also the great and large.

4.11.2 Problems

- Crowding by modern constructions has resulted in the loss of historical landmarks. Compared with the older historical maps, the city wall structures are hard to discern in modern figure ground studies.
- Complicated and busy transportation produces many issues near the site, including pollution, noise and unsafe or obscure crossings. Such negative aspects will challenge new visions for the site.

- The old neighborhoods and areas along the railway currently are in poor condition, which should be improved as part of the design project.

4.11.3 Opportunities

- Conflicts between modern and historical features could create opportunities to celebrate history in a modern presentation.
- The new design should offer more comfortable and accessible spaces for surrounding neighborhoods and the larger area. Better landscape views can be a positive experience for train passengers.
- Consideration of connections between the site and its surroundings could influence planners, providing versions of a potential network of green parks along the original city wall, or in the path that remains where it has been lost.

CHAPTER 5. SITE DESIGN

This creative project involves heritage preservation and strategies that address specific aspects of historic Chinese sites, and both remaining and lost elements. The previous chapters have explored the development of international historic preservation, regulation and specific standards for sites in China and the United States. Precedents from outside China, and within China have been examined, as well as the rich historic background of Beijing's city wall. Theory as well as practice has been used to develop guidelines and strategies; design opportunities and inspirations have been abstracted from investigation and analysis of the site, the city wall as a whole, and Chinese culture in terms of open space use. This section summarizes goals and objectives into a basic program, explains the design process, and presents the design as a series of conceptual ideas that are then resolved into the specific elements of the new city wall urban park.

5.1 Goals and Objectives

The design program has been drawn from exploration of the site, its history and historic forms, and user groups that include both neighborhood residents and tourists—Chinese and foreign. Five goals have guided the design that follows:

- 1) Celebrating the remaining city wall identity and its history: act to preserve the existing parts of the wall, and rather than rebuilding any part of the site, develop strategies to interpret the missing parts, as well as finding opportunities to teach about the larger story of Beijing's and China's history.

- 2) In situations where historic elements have been lost, provide means to help visitors visualize the missing elements without physically adding them to the site. Find present-day uses for spaces that offer opportunities to evoke the past.
- 3) These historical footprints can act as memories as well as provide much-needed green space.
- 4) Restoring the existing nearby Hutong community by making additional courtyards based on historic patterns, and by considering their green space needs.
- 5) Creating accessible, comfortable, and vivid public spaces that permit diverse experiences which contribute to the well-being of urban populations of all ages, specially meeting Chinese cultural requirements. Make a park landscape that takes advantage of natural terrain and strategically placed green barriers to reduce noise and pollution, and to increase safety of users; as well as to create pleasing views for those travelling by auto and train.

5.2 Design Process

The purpose of this creative project is to reclaim the remaining city wall and its history, including traces of the missing wall and railway, and to create promoted public spaces in the contemporary urban center. This section introduces how the final design has grown from four points: theoretical researches, historic background, site investigation and analysis, and general organized theme.

5.2.1 Basic Guiding Principles

In addition to the program elements above, the project draws from the explorations in Chapter 2, of standards that address historic landscapes and heritage protection:

- Comprehensive analysis of the site and its context
- Integrate conservation with large-scale urban planning
- Minimum impact on the historic fabric
- Maximum respect for contributions from all historical periods

This creative project will seek to create long-range potential for a large scale city wall project, to serve as an example for reducing new construction in areas of remaining historic fragments. The following section shows the development process of the overall site design concept.

5.2.2 General Design Process

- The process begins with the two areas of the project, the Hutong to the west and interior of the wall, and the eastern, undeveloped park area. By overlaying successive figure-ground plans from the four dynasties, an historically open land is found. Drawing a north-south central axis can connect the two separated areas. Thus the two areas which were not built on since the Ming Dynasty can be enclosed with a traditional style wall, and designed as a historical yard with a green space in the center. The east-west center axis can then connect the historic yard in the traditional neighborhood, and provide a basis for the main entrance of the larger park, as well as

a future entrance of a separate moat park. This supplies a future opportunity to integrate these two historical areas.

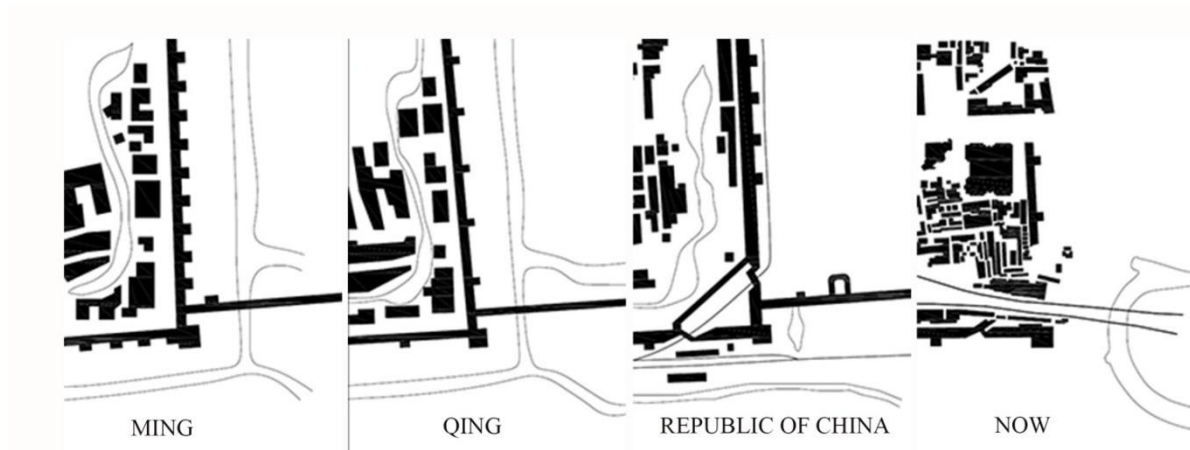


Figure 5.1 Figure-ground Showing Changes over Four Dynasties

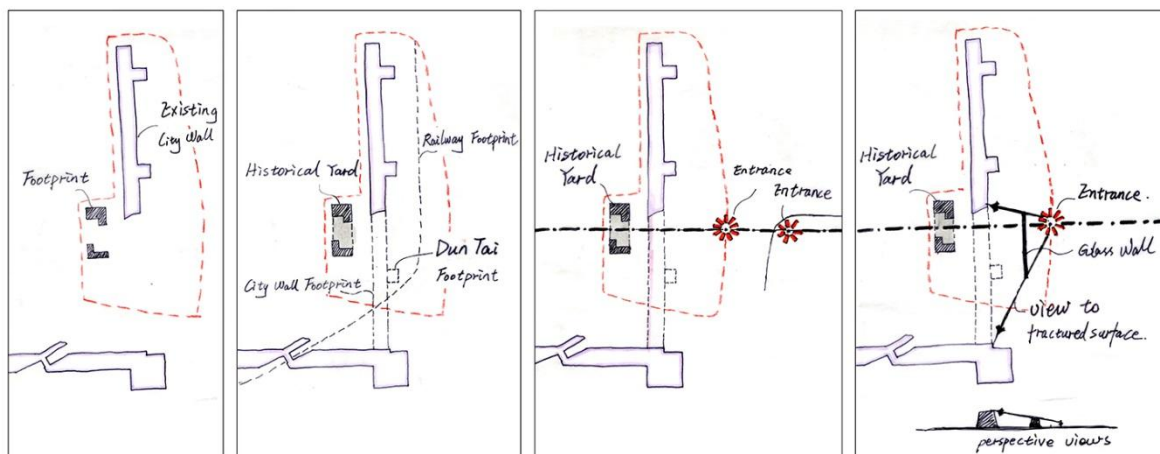


Figure 5.2 Design Process Diagram Showing Axial Developments

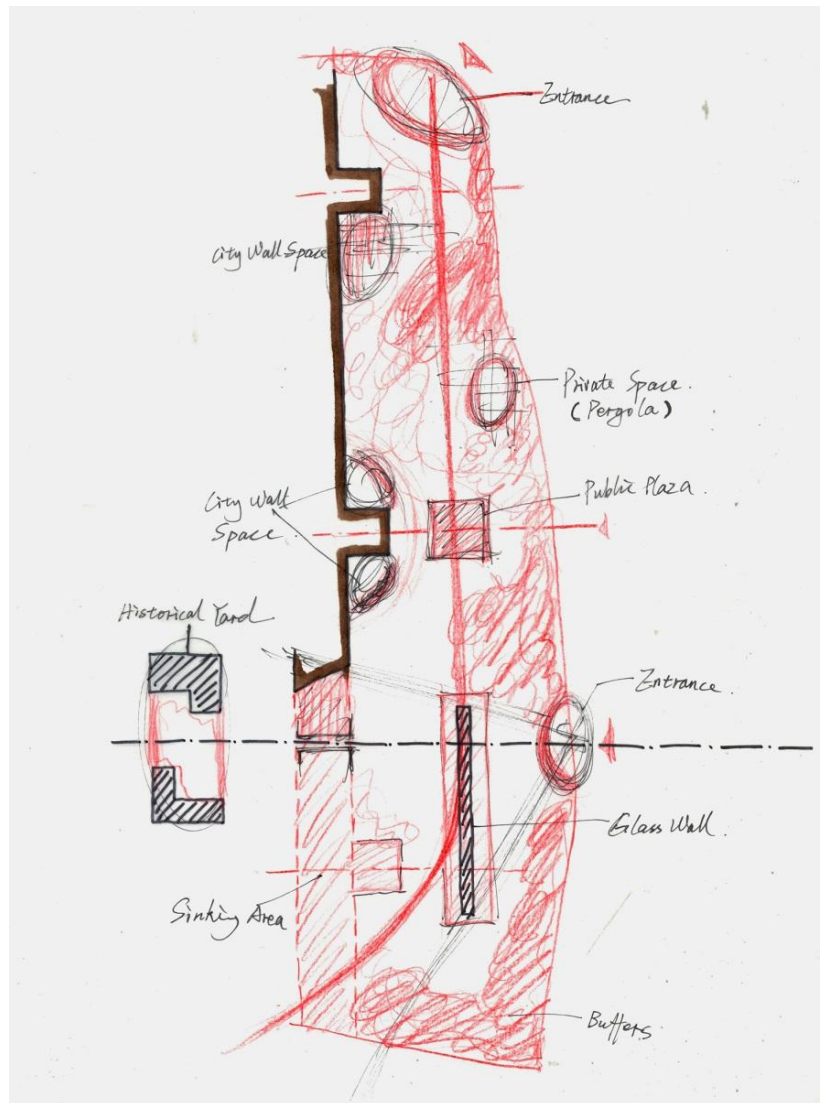


Figure 5.3 Overview of Site Design Concept

- The city wall has witnessed a long history since the time of the Yuan Dynasty. To display this aspect of the site's history, the linear park is divided to four parts, separately addressing the four dynasties—Yuan, Ming, Qing, and Republic of China. The southern part will address the the modern period for future explorations. Drawn from the early Republic of China map, the historical railway footprint will serve as a main axis. Special paving and materials are used to emphasize the characteristics pattern of the railway. The dynastic timeline is divided years along this particular access, showing the symbolized railway footprint.

- The historic wall was separated by the railway, and this project aims to re-connect them. This is a key point of the project, to protect historic elements while interpreting their history in ways that are vivid to those visiting the site in the present day. Thus, a new glass structure is designed to “fill” the missing part of the historic wall, using an inscribed glass structure. When viewed from specific focal point, the drawing of ancient wall, inscribed on glass, will show the viewer standing at that marked point, a “complete” wall as the drawing of the wall on glass appears to overlay the broken wall beyond. The footprint area where the original wall, once stood is designed as a sunken plaza. It is a reasonable hypothesis that significant archaeological fragments could be discovered during construction, which would then be both protected and displayed.

5.3 Creative Project Design Description

This section shows the final design with a rendered master plan and the completed schematic design. Explanatory diagrams are used to present design concepts, and sections and perspectives display the detailed design.

5.3.1 Master Plan

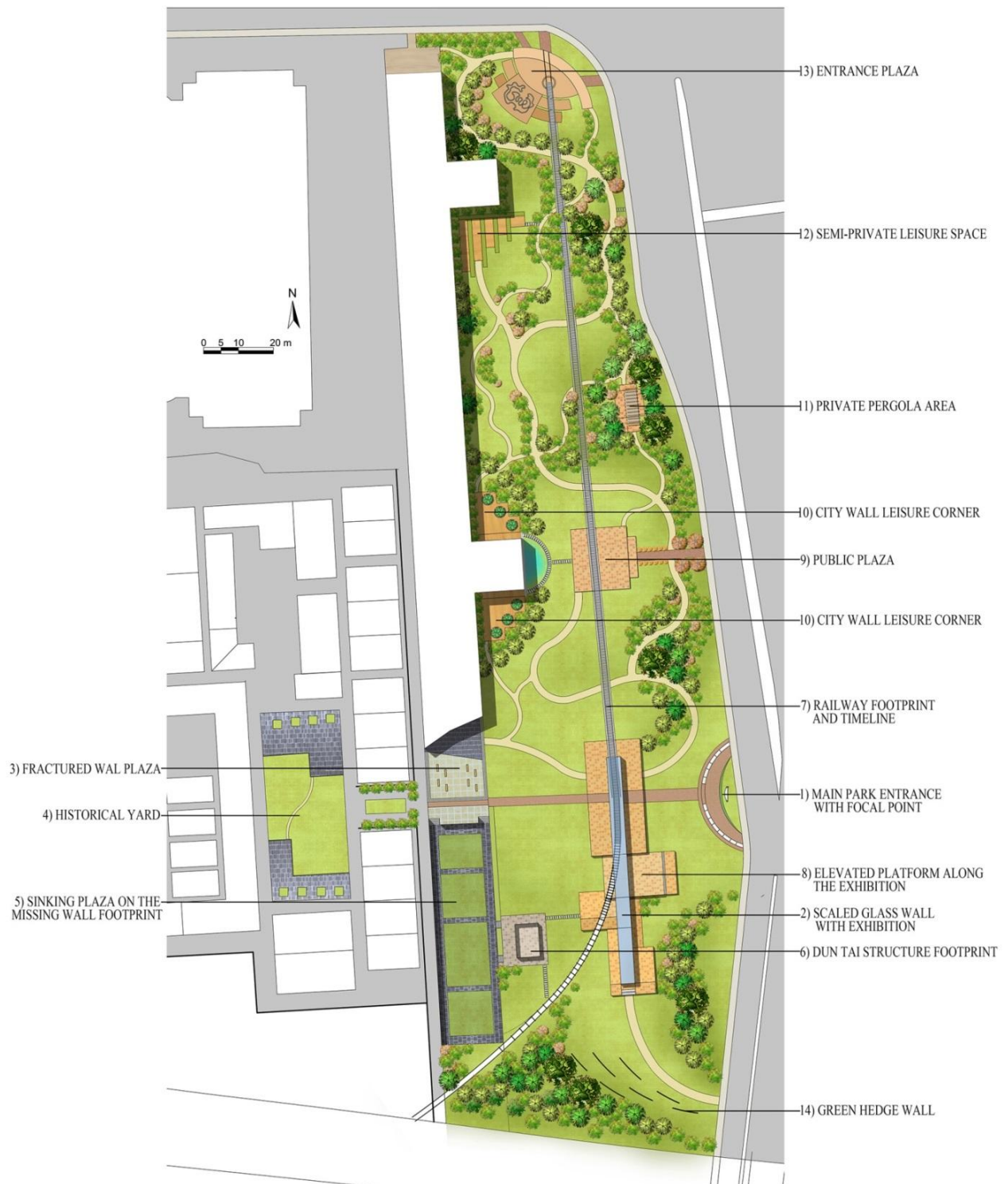


Figure 5.4 Master Plan

- 1) The main park entrance with the marked focal point: axis as in an organized centerline, the main horizontal access narrows from east to west; the name of the park is carved into a large stone, facing the north-south pedestrian walk and the Second Ring Road; wood seating along the edge of the central green space creates a place for people who are viewing from the focal point; the central cross axis leads visitors who are entering the park.
- 2) The glass structure is 4 meters wide and houses historic exhibits, and it is the key element in the memory of the missing city wall. Shown in section A, the length of the structure is the width of the cone of vision of a person standing on the focal point. The 4-meter height is topped with the crenels and parapets of the original wall, and allows a person at the focal point to see the inscribed glass drawing of the wall as overlaid on the existing wall. Openings in the structure allow people to pass freely through the exhibit space, and the opening on the central axis is larger than others. Historical events and stories are exhibited on the walls; materials change from frosted glass to transparent, and the upper parapet “fills in” the “missing parts” of the wall when viewed from the focal point.
- 3) The fractured wall plaza: the line of the cross axis follows from the glass wall to the fractured surface; the sunken plaza offers quiet spaces for people to have a sense of the historic presence and view the fractured surface of the remaining wall.
- 4) Historical Hutong yard: the two historically open areas are designed as a simple neighborhood square, offering seating trees and grass lawn; black bricks and gray tiles are used to contrast traditional and modern paving; a traditional styled wall

encloses this yard, supplying a private space for the nearby neighborhood. The cross axis terminates in this small park, with the access opening from the larger park designed with a narrow gate, reducing the potential disturbance from the public spaces.

- 5) Sunken plaza within the missing wall footprint: the design assumes that heritage fragments will be found during construction; this part of the park would then have glass protection over archeological artifacts and be developed in the same ways as other, similar sites in the city.
- 6) The Dun Tai structure footprint: as mentioned in earlier sections on the city wall, a Dun Tai is a projecting rampart extending outward from the main wall. The city wall in this site has two Dun Tai remaining. This proposed Dun Tai “memory” is based on the historical map of the wall; traditional black bricks are used as paving; larger bricks enclose the foundation of this watch tower; sculptures show the site as used in ancient times.
- 7) Railway footprint and timeline: measuring with years, the timeline is divided into 544 sections starting in the north, from the end of the Yuan Dynasty (AD 1368) to the end of the Qing Dynasty (AD 1911). A point on the central axis shows the year 1912 when the Republic of China was established; important events will be written on a frosted glass paving strip which stands for the railway ties; a pair of shiny metal strips with a 1.435-meter width stands for the rail track, and stretches the length of the former railway. Lights are placed under the glass for night time viewing, and

spaces between the glass ties are designed to be farther and farther apart as the real railway is approached, symbolizing the losses of history.

- 8) An elevated platform along the exhibition structure takes advantage of the project site having a slight slope downward from south to north. The topography allows elevated platforms to be placed along the glass wall, and signs and benches are designed to provide for those who want to enjoy this vantage point.
- 9) The Qing public plaza: this plaza is on the centerline of the south existing “Dun Tai” structure, and has a secondary entrance. Open spaces accommodate gatherings for diverse activities, such as dancing or singing in a group; seating and lights display Qing Dynasty features.
- 10) The city wall leisure corner: two spaces enclosed by the wall and green hedges offer visitors private quiet places to be close to the historic wall; stone benches under pine trees create natural open spaces like in traditional Chinese private gardens.
- 11) Private pergola area: dense vegetation of different height levels is planted around the pergola area, offering private quiet spaces for people who want to rest or air birds.
- 12) Semi-private leisure space: traditional round stone tables and benches are put in this area; vegetation offers semi-open spaces to allow people to see around but also enjoy quiet; strips of paving and grasses create special spaces near the wall, offering a great space for those who like to do Tai Chi in a small group and also those like playing chess quietly.
- 13) Main entrance plaza: previous analysis shows that an entrance at this corner of the site will serve surrounding neighborhoods to the north and people from local

institutions; the railway determinates in the center of this lowest terrace, which shows the Yuan Dynasty; a winding canal in front of the wall signage is a well-known form from history for today's people; terraces at different heights guide people walking toward to the end point of the rail track, which is the main north-south axis, and an important design features that connects the whole site.

- 14) Green hedge wall: curved hedges trimmed as walls line the southern secondary entrance; vegetation around these different heights of hedges transitions from lawn to dense high trees along the railway, offering visual buffers based on safety consideration; white iron fence structures are placed in front of the hedges, shaping a decorative pattern of the city wall pattern, giving people a familiar image for the city wall park and also supplying landscape views for train passengers.

5.3.2 Design Concept Diagrams

Multiple diagrams show the specific design concepts of the following components: circulation, spaces, views, and vegetation. Spatial diagrams address four aspects: active or passive, public or private, site amenities, and the framework of the site as a whole. The first three mainly identify program areas.

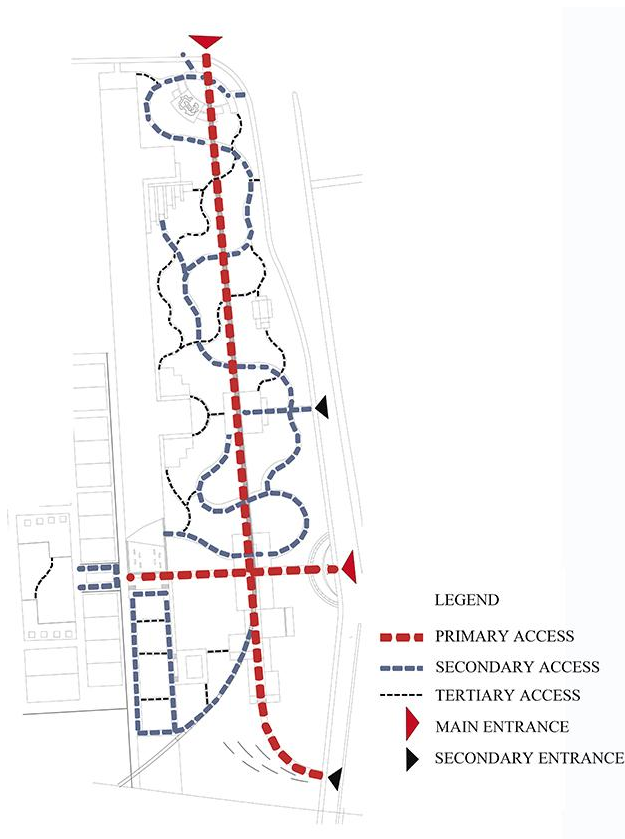


Figure 5.5 Circulation and Access Points

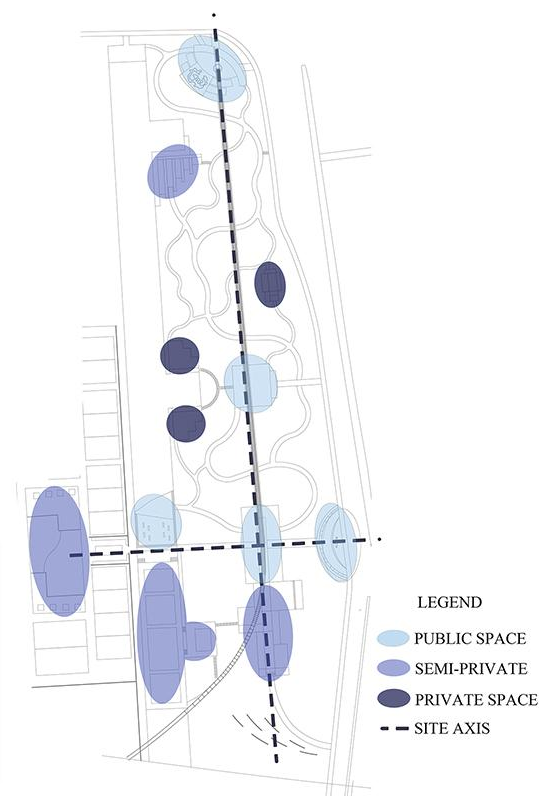


Figure 5.6 Public and Private Spaces

This creative project has three levels of access: primary (2.5 m wide), secondary (2.0 m wide), and tertiary (1.2 m wide). The two primary paths are also the main axes of the park. Secondary paths connect public and semi-private program elements, allowing people to conveniently enter those spaces. Tertiary access provides curved paths to the enclosed private spaces. This hierarchy of path widths distinguished between the straight paths vs the curvilinear walkways which are those most often used in ancient Chinese gardens. Walking along the curved paths in a park can increase exposure to views and develop greater interest in exploring different spaces.

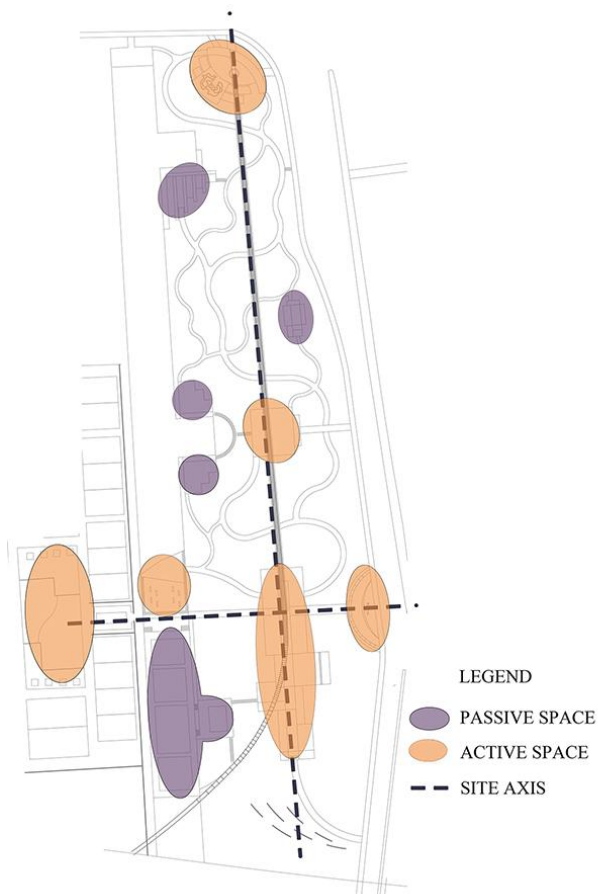


Figure 5.7 Passive and Active Spaces

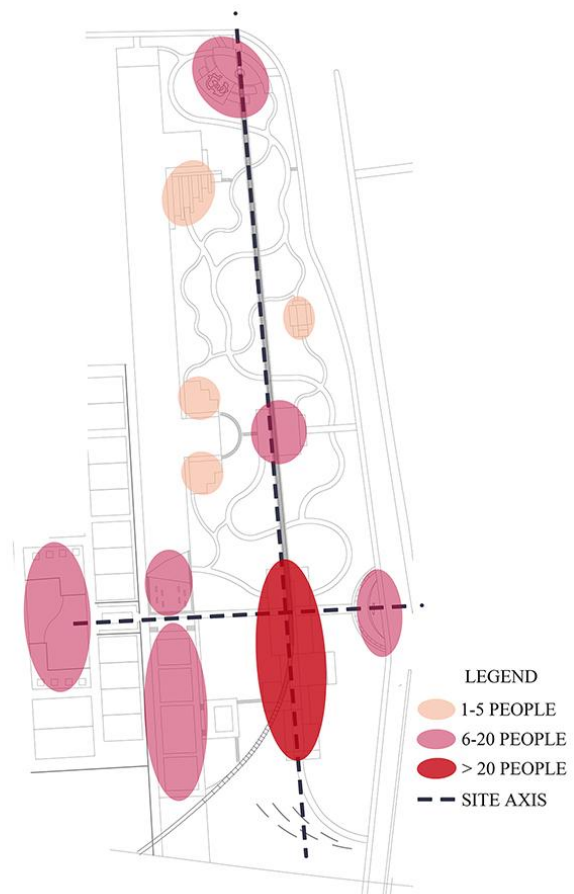


Figure 5.8 Scale of Spaces Related to Use

Comparing Figure 5.6 and Figure 5.7, shows that public spaces do not always mean the same areas thing as active spaces. In the same way, private does not necessarily mean passive spaces. For instance, the exhibition area with the glass wall transitions from semi-private to public, offering different spatial experiences for people entering the park from the northern secondary entrance. However, the whole exhibition area is all active space, providing abundant historical information and stories about the city wall. The concepts of different spatial aspects include multiple design considerations, increasing the richness of experiences. Figure 5.8 demonstrates how many people each programmatic space can accommodate.



Figure 5.9 Framework of Spatial Conditions

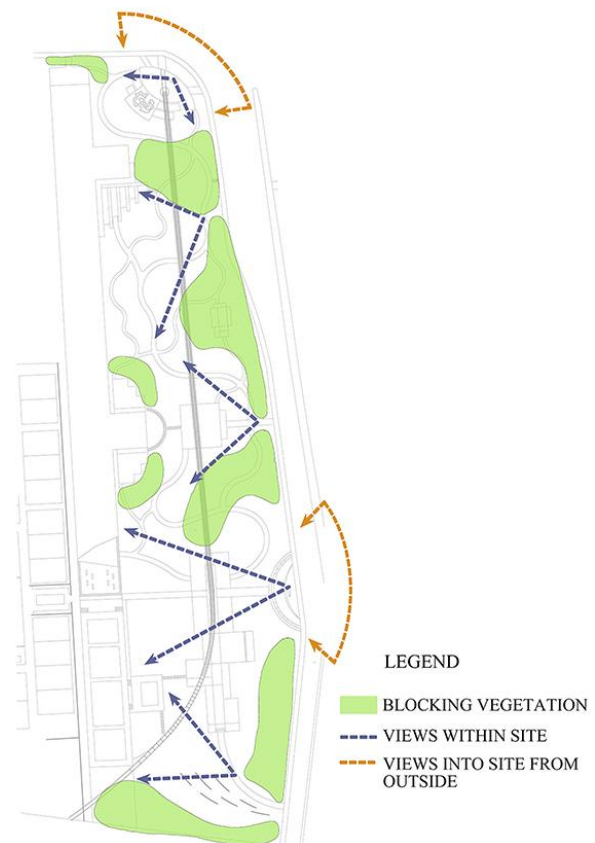


Figure 5.10 Site Views

Figures 5.9 and 5.10 show the general spatial concepts with three levels each of spaces and views. The basic idea is to provide this public park with multiple spatial experiences and enjoyable views. To realize this idea, green barriers are needed to block pollution and noise from the Second Ring Road. Similarly, a broad green buffer is also needed along the railway based on safety considerations. Broad views from the two main entrance areas are important to provide immediate accessible views of the historic city wall. The area around the cross axis supplies the most important perspective view of the disconnected walls and the historic core of the park design. From outside the site, only the two entrance areas provide views into the site, allowing passersby to gaze into the park and be motivated to enter.

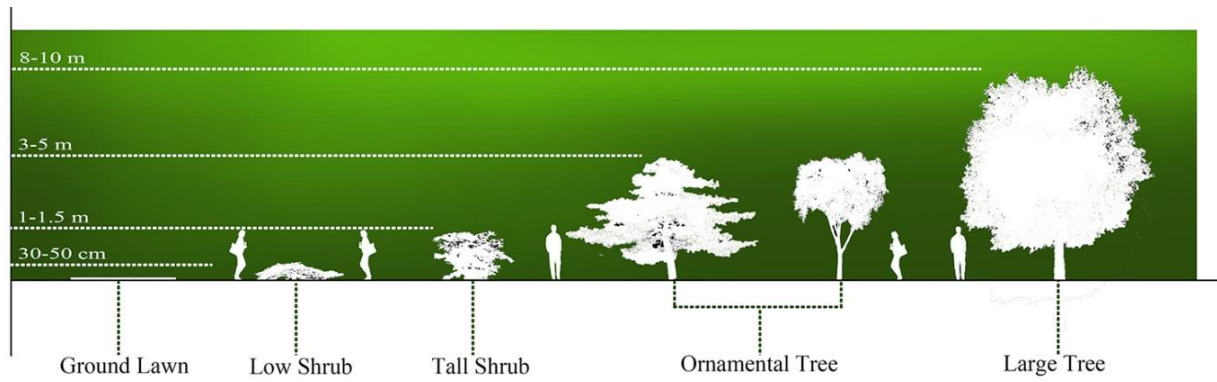


Figure 5.11 Five Heights and Types of Vegetation Used in the Site

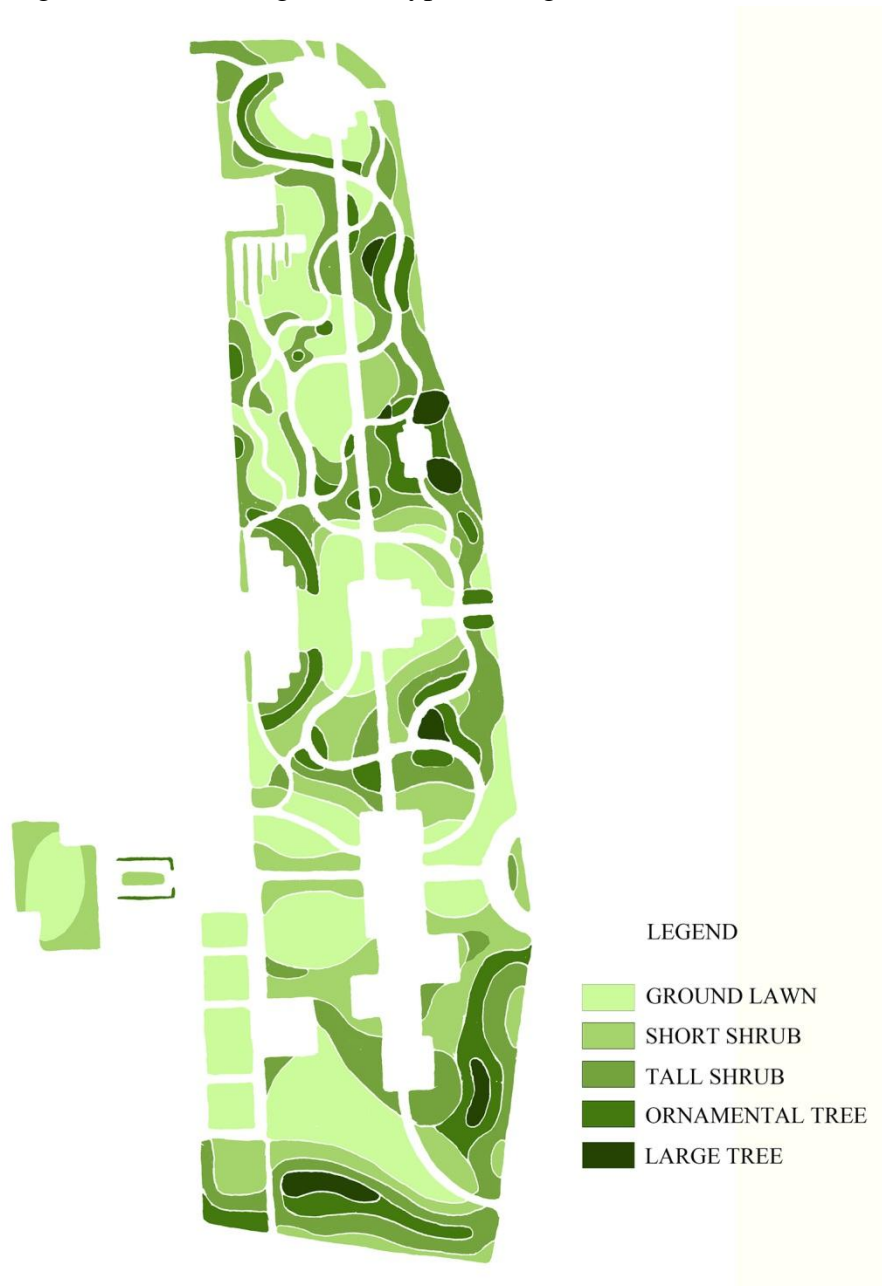


Figure 5.12 Vegetation Design Concept

The vegetation design considers five different height levels of plantings: large tree, ornamental tree, tall shrub, low shrub, and a ground plane of mowed lawn. Generally, the design retains the existing large trees which are hundreds of years old, and moves them to the more appropriate areas of the design. The height of large trees is about 8-10 meters, much higher than the current remaining city wall (6-8 meters). Ornamental trees are small with multiple ornamental features, such as tree form, leaf color, and flowers. Trees used in this park follow the basic principle of using native trees as much as possible. Compared with low shrubs, tall shrubs can provide diverse experiences with their delicate heights: above or just below eye level. When people stand or sit, experiences with tall shrubs will vary with people's situation. Low ornamental shrubs can provide rich colors and conditions. Different plants can also be used to celebrate specific festivals in Beijing.

The framework diagram in Figure 5.9 shows the use of vegetation to give a sense of enclosed versus open spaces, and the vegetation map in Figure 5.12 shows how the spaces are defined with different heights of plantings, supplying a rich spatial vision for the site experience. Figure 5.13 shows the multiple possibilities as the interactions between vegetation, accesses, and spaces are studied.

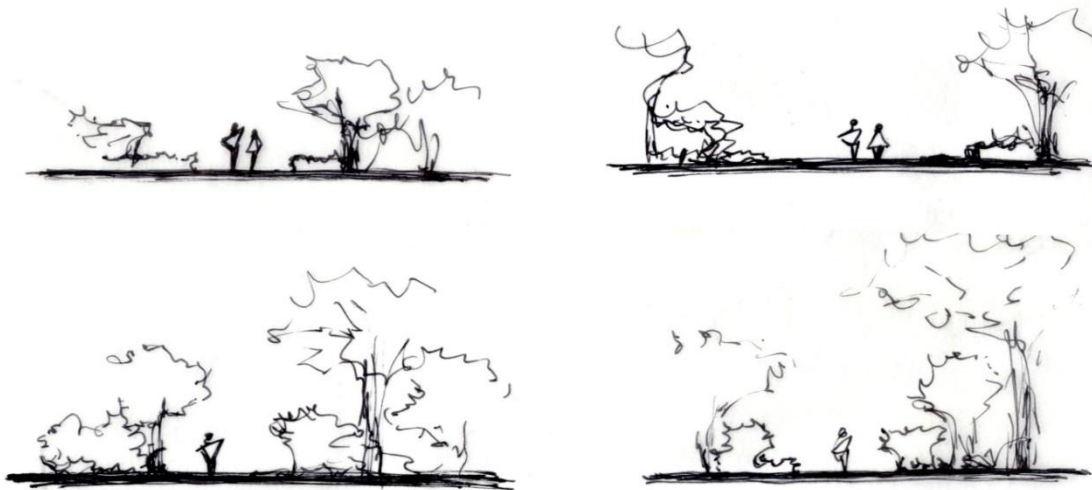


Figure 5.13 Vegetation and Varied Spatial Conditions

5.3.3 Schematic Design

Sections and view drawings are essential to show how the designed site is experienced.

The following discussion explores details through significant sections and schematic perspectives. Figure 5.14 provides a key plan for all the sections.

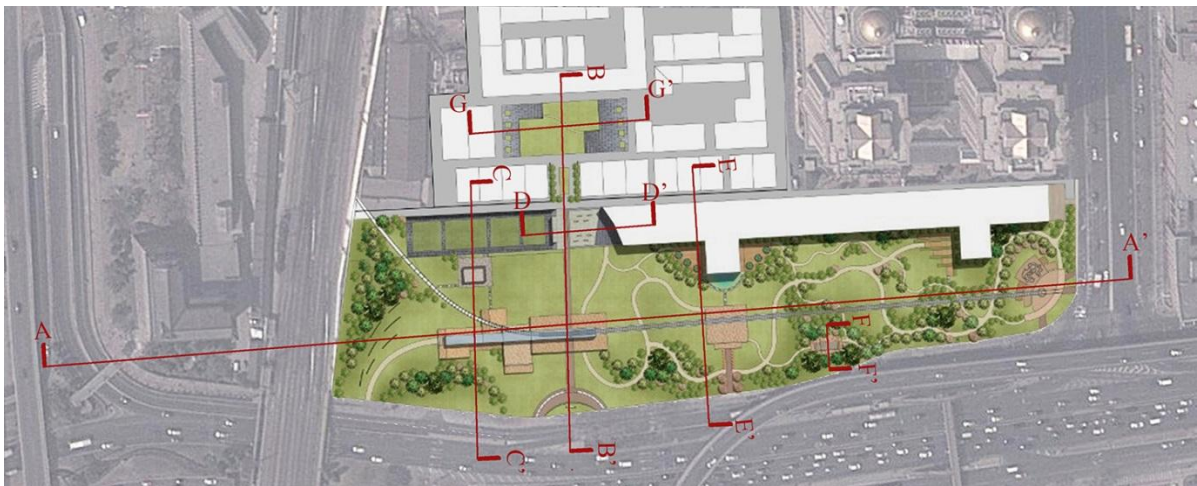


Figure 5.14 Section Locations



Figure 5.15 Section A-A'

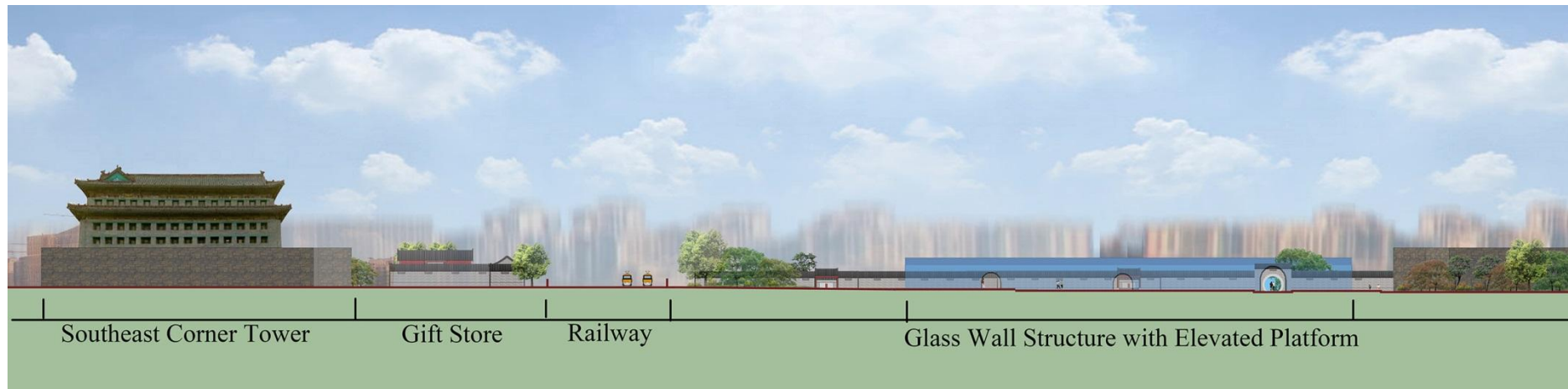


Figure 5.16 Section A-A' Detail

Section A-A' shows the north-south axis profile in the site and its surrounding area, which clearly illustrates the height relationships among the city wall, the Southeast Tower, and surrounding buildings. Figure 5.17 shows this axis perspective from the south. The railway footprint is a major organizing feature of the design, which leads people to literally walk the path of history.



Figure 5.17 View along the North-south Axis from the South, Showing How the Railway Enters the Site from the Southwest

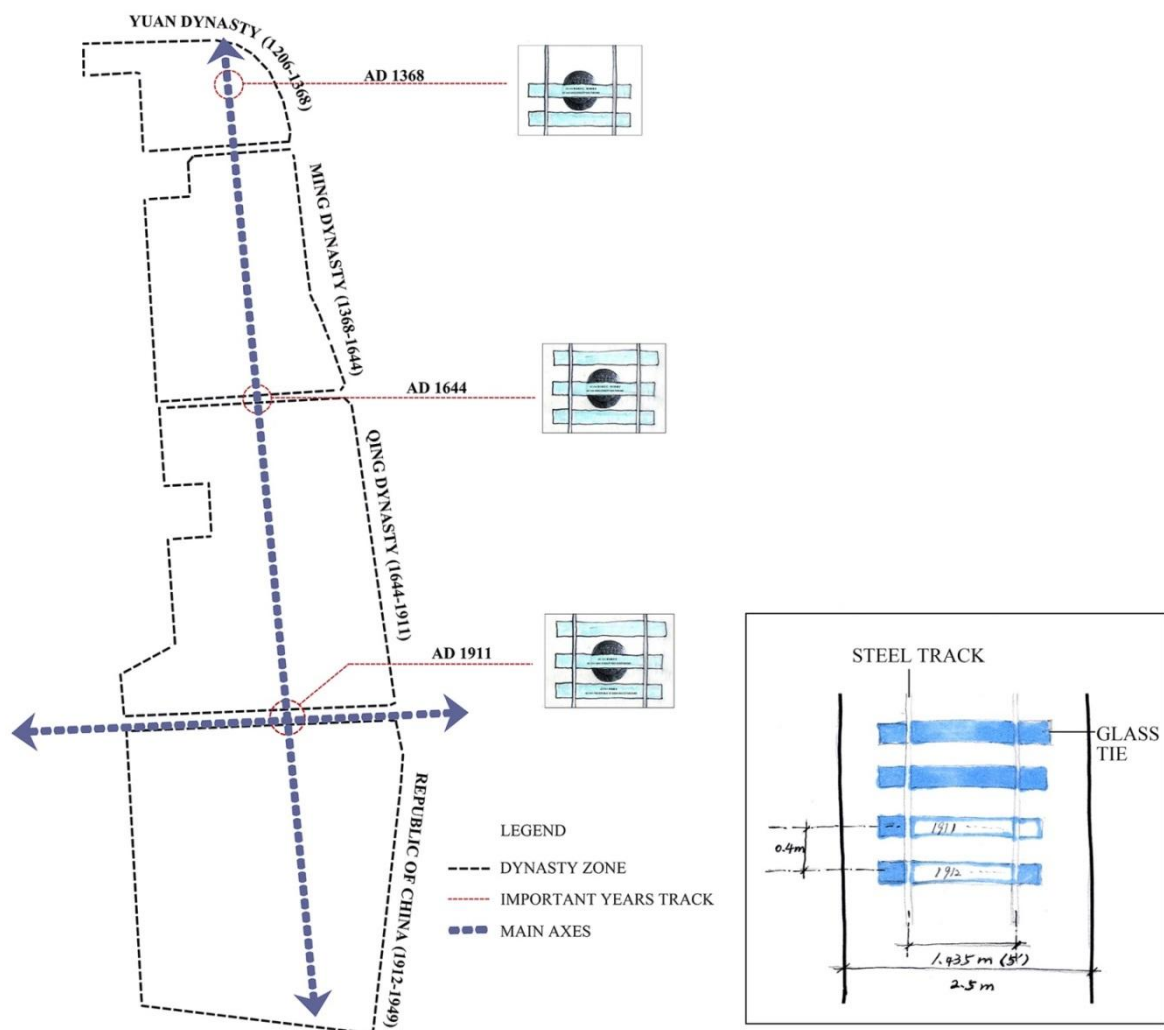


Figure 5.18 Dynastic Zones along the Timeline and Detail of the Railway of the North-south Axis

The interpretation of the railway footprint is one of the most important features in this creative project. The pedestrian version is designed as a main axis in the site, presenting the historic timeline which organizes the whole experience in the park. Representing the footprint of the historic railway, a linear design element features steel rail tracks and glass crossties tracking the passage of time through the dynasties. Measuring years, the timeline is divided by 544 glass ties from the end of the Yuan Dynasty (AD1368) to that of the Qing Dynasty (AD 1911). Figure 5.18 shows the final dynastic zone areas based on this measurement of

history. Designed to model the historic railway track, the new interpretation has metal strip track and glass paving ties. Each glass tie shows one year and important events will be written on the glass paving. The diagram in Figure 5.18 displays three significant points:

- AD1368: Yuan Dynasty was overthrown
 - AD1644: Ming Dynasty was overthrown
 - AD1911: Qing Dynasty was overthrown
- AD1912: The Republic of China was established

The distance between the steel tracks is standard 1.435 meters, about 5 feet. The width of the access is designed as 2.5 meters, allowing 2-3 people to walk together. The distance between two glass crossties is 0.4 meter, measured by the historic size. The glass is frosted, appearing soft in the day and lighted at night. Thus, when people visit the park at night, the main walkway provides beautiful views of lighted glass paving. The distance between two glass strips varies from the year 1911 when the Qing Dynasty was overthrown. Spaces between glass pavings grow designed farther and farther apart toward the real Beijing railway, symbolizing the losses of history.

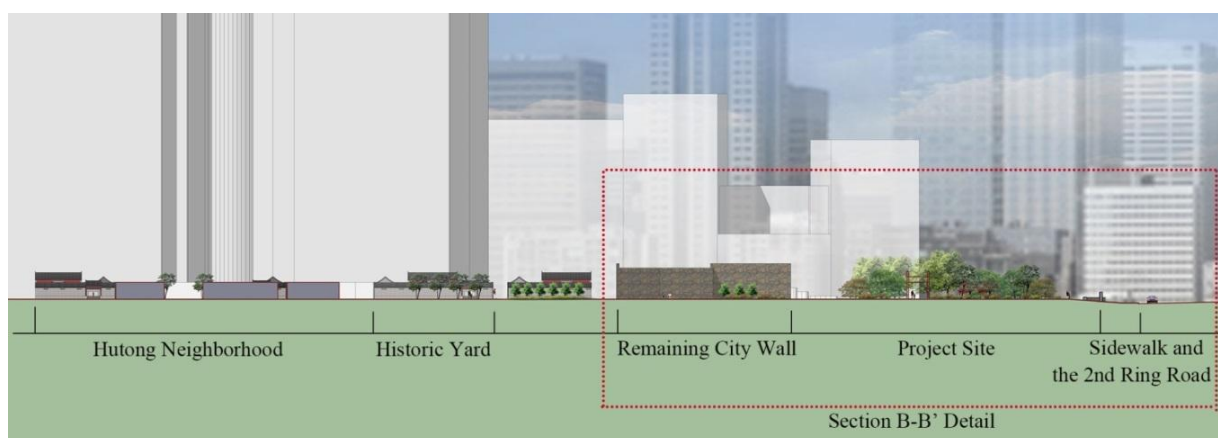


Figure 5.19 Section B-B'

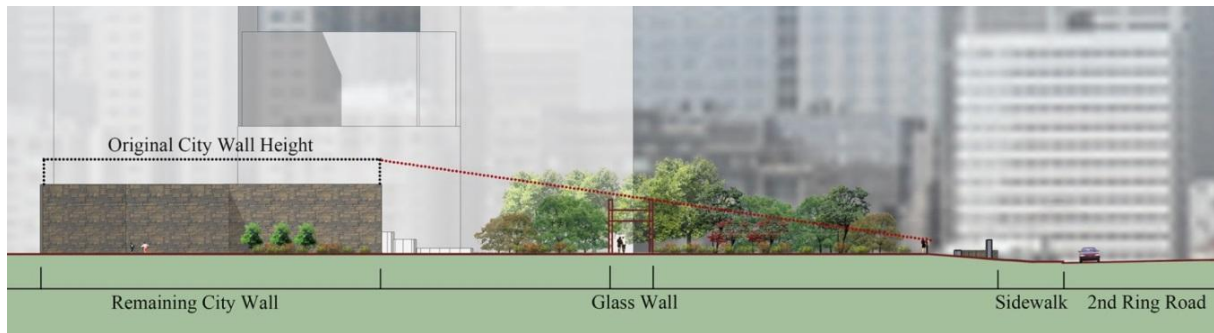


Figure 5.20 Section B-B' Detail

Section B-B' is cut along the north-south central axis viewed from the Second Ring Road perspective and the background of city buildings. The black dashed line in Figure 5.20 identifies the original city wall height. The red dashed line shows the view from the entrance near the focal point to the remaining city wall, demonstrating the power of the design idea of filling in the missing wall through a precise view through the carefully-planned glass wall. People see through the upper part of the glass wall, whose top is patterned on the original wall top, seeing the drawing of the missing part of the glass projected on the current incomplete wall. The new glass exhibition space is built with a smaller scale wall structure with top parapet and crenels (Figure 5.21). Three actual openings, copied from city wall gate, allowing people to pass through it. The opening on the cross axis is bigger than the other two, then narrows at each of the nest transitions as the walk continues westward through the site to terminate in the historical yard in the neighborhood. Figure 5.22 and 5.23 shows perspectives of the entrance and the glass wall structure.

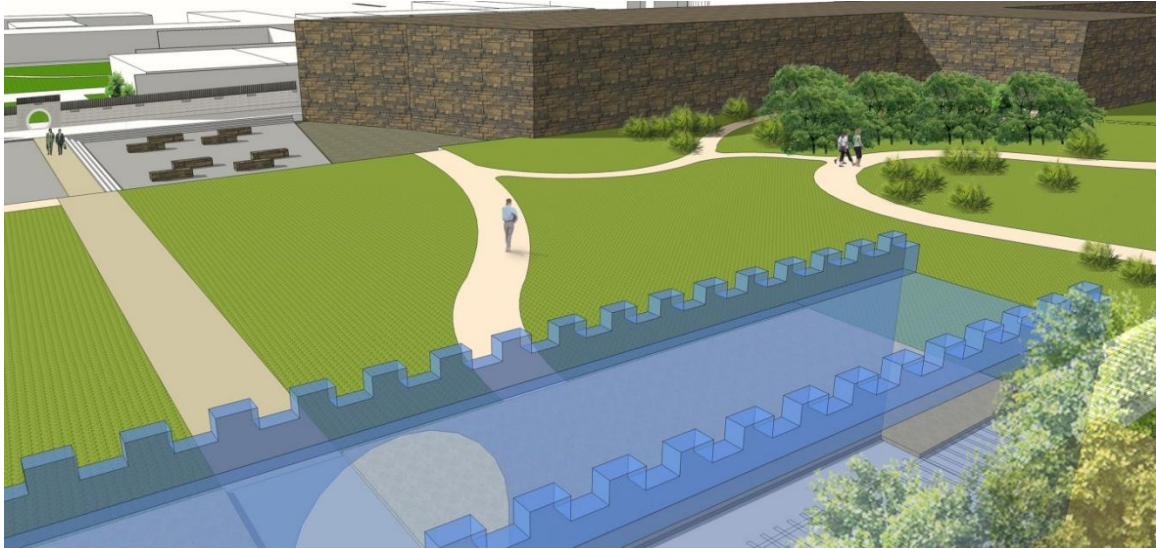


Figure 5.21 Crenel and Parapet Structure of the Glass Wall



Figure 5.22 Bird-eye View of Entrance and the Glass Wall



Figure 5.23 Main Entrance with Signage

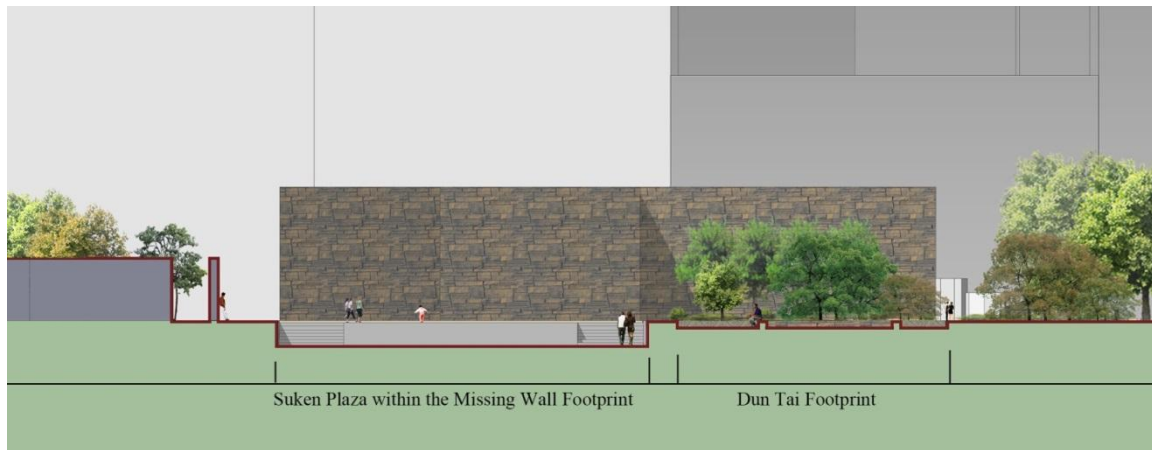


Figure 5.24 Cross Section C-C'

Section C-C' shows the sunken plaza of the missing wall footprint on the left and the Dun Tai structure footprint on the right. These two areas are designed as sunken plazas, distinguished from other parts of the park. The sunken plaza within the missing wall area is about 1.5 meters lower than the surrounding land, with stairs for easy access and seating. Thus, people can see the surrounding areas from the lower plaza. Figure 5.25 is a perspective view of these plaza areas, looking toward the north. Any significant heritage fragments found during construction would be protected and displayed.



Figure 5.25 Sunken Plaza within the Missing Wall Footprint

Figure 5.26 is the perspective of the proposed Dun Tai plaza, which is 0.4 meters lower than surrounding land. A rectangular foundation ruins is designed to show the footprint of the watch tower on Dun Tai. People can sit on the stone ruins, resting or talking with each other.

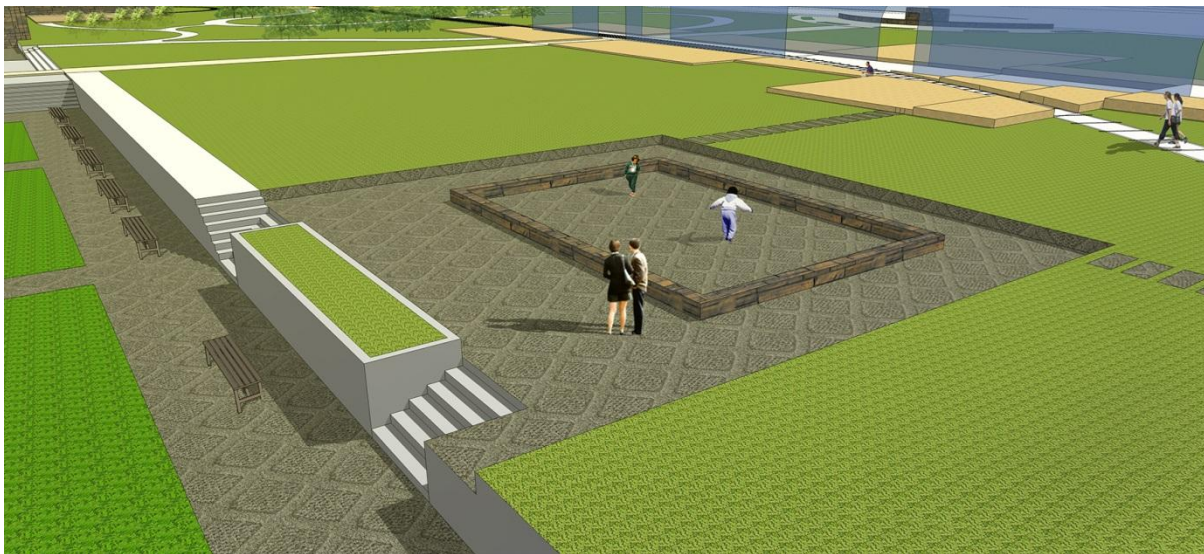


Figure 5.26 Dun Tai Structure Footprint



Figure 5.27 Section D-D', Looking North toward the Hutong Neighborhood

Section D-D' shows the height levels of the sunken plaza and the area near the fractured wall. Stairs allow people to walk down to the levels on both sides of the central axis. The platforms are 0.45 meter (3 stairs) lower than the central access. Benches are placed on the plazas, offering seating area for people to enjoy views of the city wall.



Figure 5.28 The Plaza Near the Fractured Wall Surface

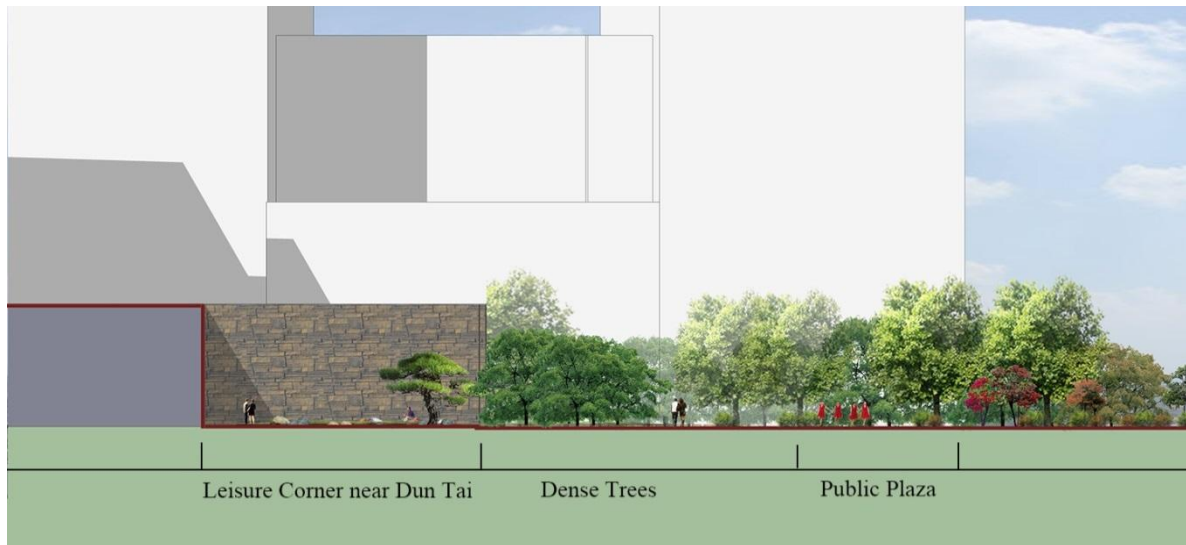


Figure 5.29 Section E-E'

Section E-E' shows the corner area formed by the wall and the Dun Tai, and the public plaza at the center of the site. Vegetation encloses the corner area to form a quiet private space, allowing people to enjoy spaces immediately adjacent to the city wall. Figure 5.30 shows a bird-eye view of the corner area.



Figure 5.30 City Wall Corner Perspective

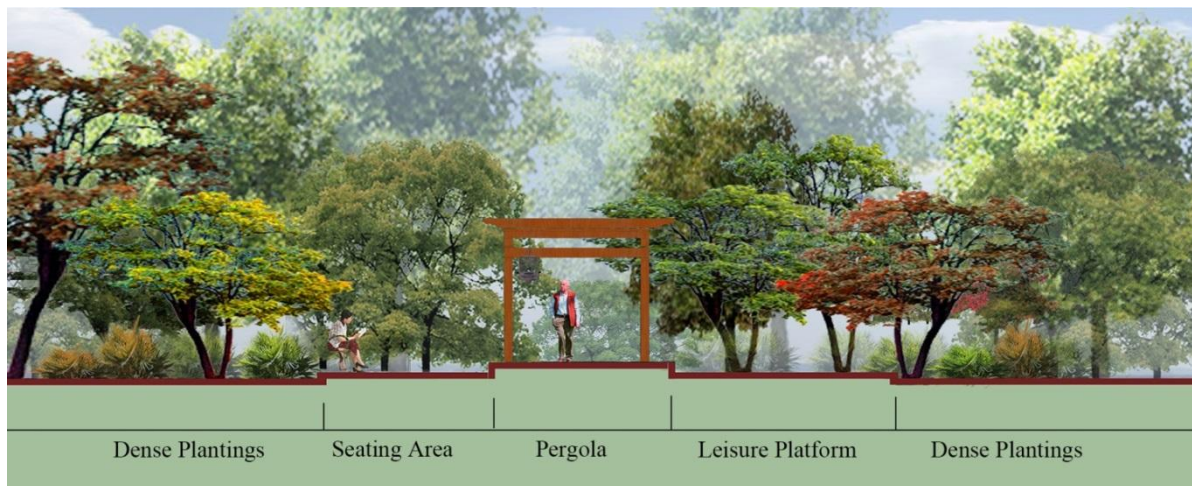


Figure 5.31 Section F-F'



Figure 5.32 Pergola Used for Airing Birds

Section F-F' in Figure 5.31 shows a detail of the private pergola area. Dense vegetation encloses this area as a private space. Appropriate height trees and pergola offer opportunities for hanging cages for those who like to air their pet birds (Figure 5.32). Curved paths around this space are intended to slow down people's pace of walking to enjoy the plantings on both sides. Plantings with pleasing seasonal changes are selected to offer a more enjoyable environment.

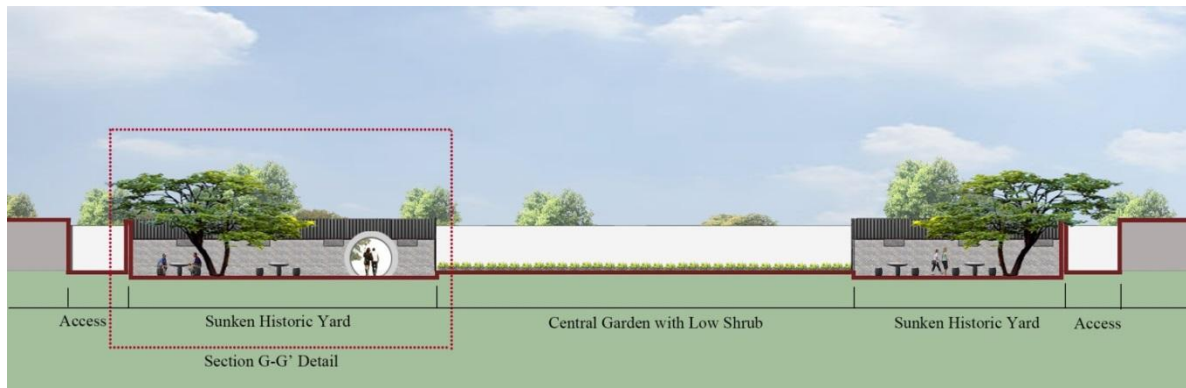


Figure 5.33 Section G-G'



Figure 5.34 Section G-G' Detail

Section G-G' in Figure 5.33 shows the historical yard. The two paved areas are formed from the overlays of figure ground plans of successive dynasties, that have left this space open from the Yuan Dynasty to today. The traditional brick walls enclose this historical yard, with a green garden in the center. Grey bricks are used as paving. Stone round tables and benches are placed under the trees throughout the plaza (Figure 5.34). This quiet yard offers an excellent leisure space for residents in surrounding neighborhoods. Figure 5.35 shows an overview of this historical yard.



Figure 5.35 Historic Yard Neighborhood Park



Figure 5.36 Primary Entrance Plaza at the North End of the Site

To attract more people to visit this park, the site has two main entrances. The northern entrance is formed as a plaza with elevated platforms to give a view of the park beyond. The lower center displays the end point of the railway, showing the Yuan Dynasty as overthrown in 1368. Ties on the track continue to the boundary of the site, representing traces of history. A winding canal is designed in front of the introduction wall, offering a play space for children. The introduction walls are different heights. The lowest one can be used as seating, with information about this park carved into the two higher walls. When people stand in front

of the wall, they can see the enjoyable background with the city wall and trees.

5.4 Future Contributions

This creative project is located as an extension of the Ming Dynasty Wall Relics Park, which has the longest remaining city wall from the Ming Dynasty. Chapter two described a current government-project: Restoration of Historic Landmarks. Although the idea of rebuilding some landmark towers is not encouraged, restoring Beijing's historical pattern is an excellent idea for future generations. With continuing rapid urban development, youths in Beijing can no longer identify the historical convex city pattern. Historic fragments are scattered in many places along the Second Ring Road—the original city wall area. In considering future needs for visible history, this project offers a significant connection. Figure 5.35 shows the basic ideas of the connection project. Green belts along the Second Ring Road could relate all the separated fragments, and form the historical convex pattern of Beijing. Thus, architect Sicheng Liang's city wall park proposal from a half a century ago could be realized in a similar way today, connecting 21st-century Beijing with its historic past. As Liang described in his proposal (Figure 5.35), "the city wall park could serve millions of people to enjoy the cool air within the green spaces; the moat could be a good skating rink in winter, a good fishing or boating place in summer." With implementing a respectful design of connection, Liang's earlier plan that was never realized could be achieved in today's Beijing.

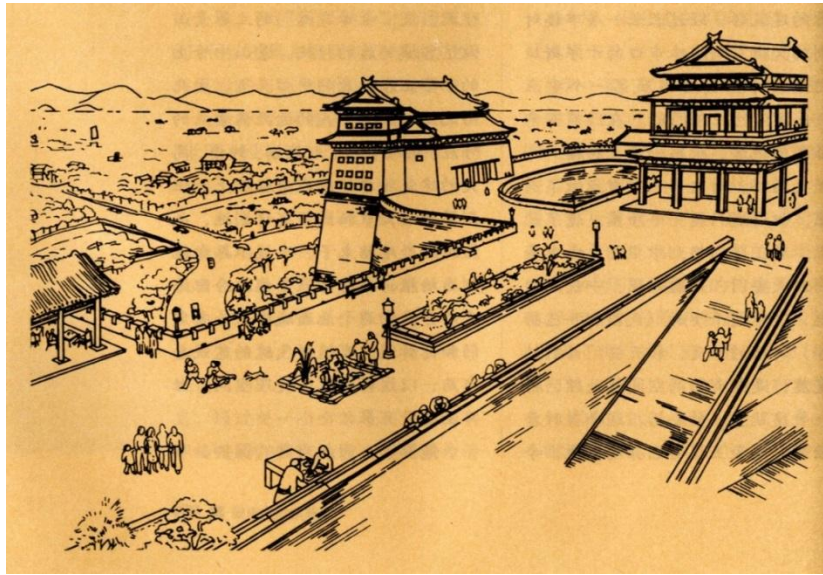


Figure 5.37 Liang's Concept Drawing of the City Wall Park

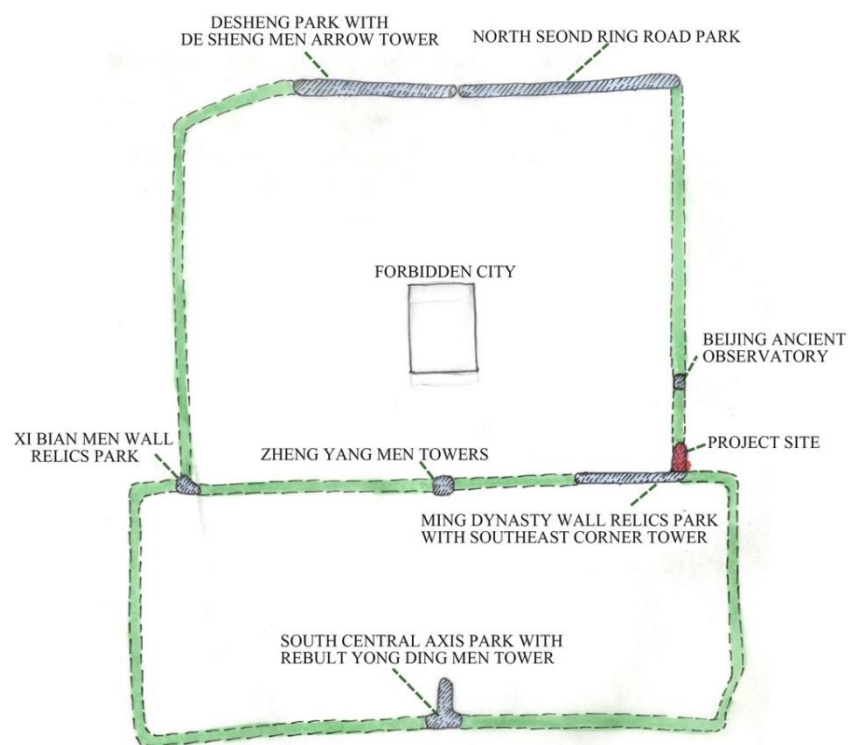


Figure 5.38 Future Restoration Concept of the Historic City Pattern

CHAPTER 6. CONCLUSION AND REVIEW OF THE PROCESS

This creative project redesigns a public park in Beijing, China, building a modern park around the historic elements—particularly the remaining city wall from the Ming Dynasty (1368-1644). The purpose is to celebrate the remaining city wall and its history, to visualize the missing wall and historic railway, and to create an enhanced public space in Beijing's contemporary urban center. To complete these goals, this creative project was conducted in the following steps:

1. Historic and Theoretical Research

The first step to start this creative project was to research historical background, and theory related to heritage sites. The literature review explored historic preservation practices around the world and in China, and guidelines for this type of landscape design were developed that provided a basis for decisions made in the design. The city wall in Beijing has an extremely long and complicated history, but an understanding of the different dynasties provided references for the design phase.

2. Site Investigation

The second step to explore this creative project is to complete site investigations and survey. With rapid urbanization, few fragments of the historical city wall remain in Beijing. In field trips walking along the original city wall path, different aspects of the city wall remnants were mapped. Multiple criteria informed the selection of a suitable project site.

3. Design Concept Development

Design strategies were drawn from the above two steps to inform potential design directions, that became the basis for “filling” the missing part of the city wall, of bringing the historical footprints to the surface, and creating enhanced green spaces and for the surrounding neighborhoods and for the city as a whole.

This creative project design is necessarily limited by time, ability, and conditions. If given future opportunities, further explorations would address the following aspects:

- Vegetation

Although the current project supplies a vegetation concept with five levels of plantings, few specific species are selected to improve the design. The future exploration could address native vegetation, including productive and ornamental trees and shrubs. Plantings that change with seasons should also be considered accommodating to the site design.

- Surrounding Design

First, the nearby traditional neighborhoods will be enhanced with deep exploration, such as housing types, life of the streets, residents’ preferences, and other related features. Second, the eastern moat area could be explored, beginning with the entrance on the central axis of the current project. The Grand Canal Wharf in this moat site will be explored for design interest, creating connections with the current site design. Third, stronger connections will be created between the current site and the southern part of the city wall park. The southern part will address modern features to strengthen the sequence of dynastic expressions from north to south.

- Materials and Engineering Considerations

This current project does not consider any engineering problems. Future opportunities can help implement the design with reasonable engineering approaches. More materials will be researched and selected to realize a better design.

- Future Restoration of Historical City Pattern

The restoration of Beijing's historical city pattern will be projected with more detail and specific proposals; multiple segments along the Second Ring Road will be divided to create a phasing plan for this restoration project. This proposal would restore Beijing's historical convex pattern, but could also widens the green belts along the Second Ring Road, creating a magnificent project—a fascinating green necklace with luminous pearls of heritage.

LIST OF TABLES

Table 2.1	Four Types of People's Activities in Open Spaces
Table 2.2	Distinguishing Yuan, Ming, Qing and the Republic of China
Table 3.1	Period and Names of Dynasties
Table 3.2	General Status of the Ancient City Wall
Table 4.1	Estimated Gaps between Projected Population Figures and Actual Accounts
Table 4.2	Gross National Production (GNP)
Table 4.3	New Proposal of Beijing's Urban Planning
Table 4.4	Site Selection Statement

LIST OF FIGURES

Figure 2.1 People in the Park

- Blind Dating in the Park. *Wenxuecity*. Jan. 2014
 <<http://www.wenxuecity.com/news/2013/03/28/2310049.html>>.
 Dancing in the Park. *Xinmin*. Jan. 2014
 <<http://sh.xinmin.cn/special/newspictures/2013/02/04/18513138.html>>.
 Elder Dancing Women. *News.CCTV*. Jan. 2014
 <<http://news.cctv.com/special/C18807/20070806/103204.shtml>>.
 People Doing Tai Chi. *163*. Jan. 2014
 <http://2008.163.com/photo/05SD0074/1635_3.html>.
 Walking with Birds. *Nipic*. Jan. 2014
 <<http://www.nipic.com/show/1/62/05d8a3d969b9b40a.html>>.

Figure 2.2 Traditional Chinese Elements

Figure 2.3 Architecture and Art during the Yuan Dynasty

Figure 2.4 Architecture and Art during the Ming Dynasty

Figure 2.5 Architecture and Art during the Qing Dynasty

Figure 2.6 Architecture and Art during the Republic of China

Figure 2.7 Pictures of the Berlin Wall

- Berlin Wall in 1961. “Berlin Wall Maps.” *Berlin Wall Online*. Jan. 2014
 <http://www.dailysoft.com/berlinwall/maps/berlinwallmap_02.htm>.
 Climbing up the Berlin Wall. *Tiexue*. Jan. 2014
 <http://bbs.tiexue.net/post_4222895_1.html>.
 Graffiti on the Berlin Wall. Jagendorf, Mike. “Berlin Wall—Act Up.” *Redbubble*.
 Jan. 2014
 <<http://www.redbubble.com/people/mikejagendorf/works/5573770-berlin-wall-act-up>>.
 Old Photograph of the Berlin Wall. *Baike*. Jan. 2014
 <http://tupian.baike.com/a4_55_83_01300000291746125005838221180_jpg.html>.
 Protecting against the Dismantling. *591hx*. Jan. 2014.
 <<http://stock.591hx.com/article/2013-03-19/0000676209s.shtml>>.
 Street Art: Berlin. *Tipatipa*. Sep. 2010. Jan. 2014
 <<http://www.tipatipa.net/2010/09/street-art-berlin.html>>.

Figure 2.8 York’s Original Roman Walls. Ashworth, Ian. “York City Walls.” *Jorvik*. 20 Dec. 2013 <<http://www.jorvik.co.uk/york-city-walls/>>.

Figure 2.9 York City Wall Pictures

Access on the Top of the Wall. Davies, Kate. “York Craft Tour.” Apr. 2009. Jan. 2014 <<http://katedaviesdesigns.com/2009/04/25/york-craft-tour/>>.

Bootham Bar. “The York City Walls.” *History of York*. 20 Dec. 2013 <<http://www.historyofyork.org.uk/themes/the-york-city-walls>>.

City View from the Wall. Ashworth, Ian. “York City Walls.” *Jorvik*. 20 Dec. 2013 <<http://www.jorvik.co.uk/york-city-walls/>>.

Leisure Space along the Wall. *Distractions, reflections*. Sep. 2009. Jan. 2014 <<http://davidging.com/blog/index.php/archive/walking-tour-of-york-shambles-and-city-wall/>>.

Narrow Access. Ashworth, Ian. “York City Walls.” *Jorvik*. 20 Dec. 2013 <<http://www.jorvik.co.uk/york-city-walls/>>.

Stair Access to the Wall (Author’s Photograph)

Roadway through the Wall (Author’s Photograph)

Figure 2.10 Nanjing City Wall during the Ming Dynasty. Zhong, Jiatai (钟家台). “History of Nanjing City Wall (南京城墙史).” *360doc*. Feb. 2014 <http://www.360doc.com/content/11/0912/18/3218641_147707667.shtml>.

Figure 2.11 Yi Feng Men. “Nanjing City Wall—Yi Feng Men.” *Baidu*. Feb. 2014 <<http://b.baidu.com/picview/209664/209664/0/63d0f703918fa0ec5c6b8a9e269759ee3c6ddb1.html#albumindex=9&picindex=1>>.

Figure 2.12 Nanjing City Wall and Xuanwu Lake. Xu, Rankuan. *Wikimedia Commons*. 2012. Feb. 2014 <<http://commons.wikimedia.org/wiki/File:%E5%8D%97%E4%BA%AC%E5%9F%8E%E5%A2%99%E4%B8%8E%E7%8E%84%E6%AD%A6%E6%B9%96.jpg>>.

Figure 2.13 Pingyao City Wall. *Nipic*. 2011. Feb. 2014 <<http://www.nipic.com/show/1/38/5102630k1eff8a21.html>>.

Figure 3.1 Beijing Regional Topographic Map. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 3.2 Model of Beijing’s Terrain at Beijing Planning Exhibition Hall (Author)

Figure 3.3 Qing Dynasty Beijing Map. *Tszyk*. Jan. 2014 <<http://tszyk.bucea.edu.cn/gdwhlczyk2/ghyjp1/bjyz1/6457.htm>>.

Figure 3.4 Chinese Word “凸.” *Shufa*. Jan. 2014 <<http://www.4aqq.com/shufa/shufa%E5%87%B8.html>>.

Figure 3.5 Building Heights in Old Beijing and Skylines along the N-S Central Axis. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 3.6 Central Axes in Qing Dynasty. *Bjww*. May. 2011. Jan. 2014 <<http://www.bjww.gov.cn/2011/5-18/1305703797140.html>>.

Figure 3.7 Structures along the Axes. *China Plan Net*. Dec. 2011. Jan. 2014 <<http://www.zgghw.org/html/tebiezhuan/chengshijiazhi/20111220/15523.html>>.

- Figure 3.8 Bell and Drum Tower in the Republic of China and Northern Axis. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.9 Traditional Courtyard. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.10 Hutong. *Hutong Culture*. Jan. 2013
<<http://www.hutong.net/hutongqingsikan-1228/>>.
- Figure 3.11 Current Nanluoguxiang Hutong (Author)
- Figure 3.12 Qing Neighborhood. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.13 Hutong in Old Beijing City. *Old Beijing City. Beijing (18' Postcards) (老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2011.
- Figure 3.14 Current Beijing Hutong
- Figure 3.15 Counties and Districts of Beijing
- Figure 3.16 Beijing Patterns in Beijing from the 1950s. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.17 Beijing's Six Ring Roads and Perimeter Diagram. "Beijing Map." *Lvren*. June. 2013 <<http://image.baidu.com/>>.
- Figure 3.18 New N-S Central Axis. *Tszyk*. Jan. 2014
<<http://tszyk.bucea.edu.cn/gdwhlczyk2/ghyjp1/bjyz1/>>.
- Figure 3.19 Zheng Yang Men Gate. Gao, Wei, et al. *Rambling Beijing City (漫话北京城)*. Beijing: Academy Press, 2003.
- Figure 3.20 Yuan Dadu Wong Cheng. The Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.
- Figure 3.21 Xizhimen Lock Tower. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing (寻找老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2005.
- Figure 3.22 Watch Tower of Xi'an City Wall. Jamguo. "Xi'an City Wall—Watch Towers." May 2004. Jan. 2014.
<http://zh.wikipedia.org/wiki/File:XiAn_CityWall_DiLou.jpg>.
- Figure 3.23 Corner Tower of the Forbidden City. *Nipic*. Jan. 2014
<<http://www.nipic.com/show/1/75/8ab0082a0faf4071.html>>.
- Figure 3.24 Historic Photographs of Dun Tai and Structure of Parapets and Crenels. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing (寻找老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2005.
- Figure 3.25 Horse Ramp and Top of the Wall. Drawn from De Sheng Men Arrow Tower Museum.
- Figure 3.26 Beijing's Historical City Wall and Moat. *Vanished Historical Sites of Old Beijing (20 Postcards) (老北京消逝的景象)*. Beijing: Forbidden City Press, 2011.
- Figure 3.27 People Chisel and Store Ice from Frozen Moat to Use in Summer. *Vanished Historical Sites of Old Beijing (20 Postcards) (老北京消逝的景象)*. Beijing: Forbidden City Press, 2011.

- Figure 3.28 Diagram of the Changing City Walls from the Liao to the Qing Dynasty. Lu, Yinghong (卢迎红), et al. *Jin Zhong Du Water Pass Heritage Manual* (金中都水关遗址考览). Beijing: Beijing YanShan Publisher, 2001.
- Figure 3.29 Locations of the City Wall during Successive Dynasties, Compared with the Qing Dynasty. Drawn from De Sheng Men Arrow Tower Museum.
- Figure 3.30 Beijing Liao and Jin City Wall Museum and its Location (Author).
- Figure 3.31 A Restored Jin Zhongdu Map and Historic Water Pass Location. Lu, Yinghong (卢迎红), et al. *Jin Zhong Du Water Pass Heritage Manual* (金中都水关遗址考览). Beijing: Beijing YanShan Publisher, 2001.
- Figure 3.32 The Water Pass Foundation Remnants. Drawn from Beijing Liao and Jin City Wall Museum.
- Figure 3.33 Restored Water Pass Structure. Drawn from Beijing Liao and Jin City Wall Museum.
- Figure 3.34 Yuan Dadu Northern City Map and its Location in Current Beijing. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.35 Transition Maps of Old Beijing City Wall. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.36 City Gates of Old Beijing and Four Layers of City Wall. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing* (寻找老北京城). Beijing: China Nationality Art Photograph Publishing House, 2005.
- Figure 3.37 Water Gate—Xi Zhi Men. *Vanished Historical Sites of Old Beijing (20 Postcards)* (老北京消逝的景象). Beijing: Forbidden City Press, 2011.
- Figure 3.38 Qing Beijing Map. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.39 First Train Entering Beijing and the Southeast Corner Tower Station. Hu, Piyun (胡丕运), et al. *Historical Photos of Old Beijing* (旧京史照). Beijing: Beijing Publishing House, 1995.
- Figure 3.40 Beijing City Railways in the Late Qing Dynasty. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing* (寻找老北京城). Beijing: China Nationality Art Photograph Publishing House, 2005.
- Figure 3.41 Jing-Feng Railway Train Entering the City in 1915. The Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital* (帝都之门). Beijing: Beijing Fine Art Photography Publishing House, 2008.
- Figure 3.42 Pulling down Wong Cheng of Zheng Yang Men. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.43 “Liang Chen Program” Diagram. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.44 Beijing’s City Wall Structures Drawn by Liang. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Figure 3.45 Liang’s Concept Drawing of the Potential City Wall Park. Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.1 2004 New Proposal Diagram

Figure 4.2 Relationships of Subway Line 2 and the Second Ring Road. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.3 Ming Dynasty City Wall Relics Park in 2012 (Author).

Figure 4.4 Diagram of Historic landmarks Planned for Restoration. Wang, weijia, Mingyan Wei, & Shu Wang. People. 2012. Feb. 2014
<<http://politics.people.com.cn/GB/14562/17204591.html>>.

Figure 4.5 The Yong Ding Men Gate with Wong Cheng prior to the Republic of China and Showing the Loss of the Wong Cheng in 1952. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.6 Yong Ding Men Gate Tower in 1952, A Digital Synthesis Showing the Gate and Arrow Towers, and the Rebuilt Tower in 2003. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.7 Inside the Yong Ding Men in Ancient Time and Present Day. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.

Figure 4.8 Historic Views of the Exterior of the Yong Ding Men Gate. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008. Hu, Piyun (胡丕运), et al. *Historical Photos of Old Beijing (旧京史照)*. Beijing: Beijing Publishing House, 1995. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing (寻找老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2005.

Figure 4.9 Location of the Central Axis Park and Temple of Heaven (Author).

Figure 4.10 Location of the Yuan Dadu Earthen Wall Relics Park within the Second Ring Road and Position of the Park at the North Edge of the Historic City.

Figure 4.11 Pictures of Yuan Dadu Earthen Wall Relics Park (Author).

Figure 4.12 Location of the Beijing Ancient Observatory on the Second Ring Road.

Figure 4.13 Ancient Observatory in 1920s. Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing (寻找老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2005.

Figure 4.14 The Current Ancient Observatory and A Drawing of Astronomical Instruments from the Qing Dynasty. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.15 The Current Ancient Observatory with Astronomical Instruments (Author).

Figure 4.16 Location of the Ming Dynasty Wall Relics Park and City Wall Park View (Author).

Figure 4.17 Datong Bridge near the Wharf. *Vanished Historical Sites of Old Beijing (20 Postcards) (老北京消逝的景象)*. Beijing: Forbidden City Press, 2011.

Figure 4.18 Historic Photograph of the Immortal Peach Temple Fair, with the Southeast Corner Tower in the Background. Hu, Piyun (胡丕运), et al. *Historical Photos of Old Beijing (旧京史照)*. Beijing: Beijing Publishing House, 1995.

Figure 4.19 Remaining Track and the Current Signal Station (Author).

Figure 4.20 Remaining Pieces of Original City Wall at Xi Bian Men Wall Relics Park (Author).

Figure 4.21 Rebuilt Wall and Tower in Xi Bian Men Wall Relics Park (Author).

Figure 4.22 Location of Desheng Park and North Second Ring Road Park

Figure 4.23 The North Second Ring Road in 2012 (Author).

Figure 4.24 Photograph of Desheng Park (Author).

Figure 4.25 Four Layers of Old Beijing and Location of Imperial Palace Wall Relics Park

Figure 4.26 The Imperial Palace Wall Relics Park in 2012 (Author).

Figure 4.27 Location of Zheng Yang Men and its Current Situation in 2012 (Author).

Figure 4.28 Qing-era Drawings of the Zheng Yang Men. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.

Figure 4.29 Zheng Yang Men Arrow Tower in 1915 and 2012. Wang, Jun (王军). *City Recording (城记)*. Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.

Figure 4.30 Zheng Yang Men City Tower in 1915 and 2012. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.

Figure 4.31 Bird-eye View of Zheng Yang Men in Early Republic of China and in the Present Day. Lao Rong Shu. "Beijing Central Axis." *Sinovision*. Mar. 2014
<<http://blog.sinovision.net/home/space/do/blog/uid/7995/id/39042.html>>.

Figure 4.32 Qianmen Street in Late Qing, in 1930s and in the Present Day. Hu, Piyun (胡丕运), et al. *Historical Photos of Old Beijing (旧京史照)*. Beijing: Beijing Publishing House, 1995.

Figure 4.33 Location of De Sheng Men and A Current View (Author).

Figure 4.34 The Ancient De Sheng Men Arrow Tower, City Tower, and Zhenwu Temple. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.

Figure 4.35 Location of Southeast Corner Tower and the Current Setting (Author).

Figure 4.36 The Southeast Corner Tower in the Republic of China. Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital (帝都之门)*. Beijing: Beijing Fine Art Photography Publishing House, 2008.

Figure 4.37 Southeast Corner Tower in the Republic of China and A Present View in 2013. Drawn from Southeast Corner Tower Museum and Author's Photograph.

Figure 4.38 Current Layout of the Tower Upper Platform. Drawn from Southeast Corner Tower Museum.

Figure 4.39 Structures on the Top of Southeast Corner Tower Platform (Author).

Figure 4.40 Three Site Locations.

Figure 4.41 Historical Remnants of Site A and the Surroundings.

Figure 4.42 Transportation and Circulation in and Around Site A.

Figure 4.43 Contexts of Site A (Author)

Figure 4.44 Historical Remnants of Site B and Its Surroundings.

Figure 4.45 Transportation Analysis of Site B Surroundings.

Figure 4.46 Contexts of Site B.

Figure 4.47 Historical Aspects of Site C and Its Transportation.

Figure 4.48 Outside the Current Yong Ding Men Tower (Author).

Figure 4.49 Context of Site C. Fong, Charlie. “Yongdingmen and Yongdingmen Square.” Oct. 2009. Jan 2014. <<http://zh.wikipedia.org/wiki/File:Yongdinggate.jpg>>.

Figure 4.50 Site Location and Boundaries.

Figure 4.51 Historical Maps and Figure Grounds during Successive Dynasties

Figure 4.52 Site Location and Surrounding Land Uses.

Figure 4.53 Historical Structures around the Site

Figure 4.54 The Ancient Observatory Tower, the Southeast Corner Tower and the Historical Moat (Author).

Figure 4.55 Views from the West of the Eastern Moat (Author).

Figure 4.56 Expressway Greenbelt outside the Southeast Corner Tower (Author).

Figure 4.57 Green Space Land Uses around the Site.

Figure 4.58 Surrounding Height Levels and Potential for Bird-eye Views from High Points.

Figure 4.59 Ground View to East of the Site (Author).

Figure 4.60 View into the Site from the East Pedestrian Bridge (Author).

Figure 4.61 Elevation View into the Site from East of the Second Ring Road (Author).

Figure 4.62 Residential Land Uses around the Site.

Figure 4.63 Institutions within 5-minute Walking Distance to the Site.

Figure 4.64 Transportation throughout the Larger Area around the Site.

Figure 4.65 Transportation Details Immediately Surrounding the Site

Figure 4.66 East Boundary along the Second Ring Road (Author).

Figure 4.67 South Boundary from the Southeast Corner Tower (Author).

Figure 4.68 Topography around the Site.

Figure 4.69 Main Site Contexts (Author).

Figure 5.1 Figure-ground Showing Changes over Four Dynasties.

Figure 5.2 Design Process Diagram Showing Axial Developments.

Figure 5.3 Overview of Site Design Concept.

Figure 5.4 Master Plan.

Figure 5.5 Circulation and Access Points.

Figure 5.6 Public and Private Spaces.

Figure 5.7 Passive and Active Spaces.

Figure 5.8 Scale of Spaces Related to Use.

Figure 5.9 Framework of Spatial Conditions.

Figure 5.10 Site Views.

Figure 5.11 Five Heights and Types of Vegetation Used in the Site.

Figure 5.12 Vegetation Design Concept.

Figure 5.13 Vegetation and Varied Spatial Conditions.

Figure 5.14 Section Location.

Figure 5.15 Section A-A'

Figure 5.16 Section A-A' Detail

Figure 5.17 View along the North-south Axis from the South, Showing How the Railway Enters the Site from the Southwest.

Figure 5.18 Dynastic Zones along the Timeline and Detail of the Railway of the North-south Axis.

Figure 5.19 Section B-B'

Figure 5.20 Section B-B' Detail.

Figure 5.21 Crenel and Parapet Structure of the Glass Wall.

Figure 5.22 Bird-eye View of Entrance and the Glass Wall.

Figure 5.23 Main Entrance with Signage.

Figure 5.24 Cross Section C-C'.

Figure 5.25 Sunken Plaza within the Missing Wall Footprint.

Figure 5.26 Dun Tai Structure Footprint.

Figure 5.27 Section D-D', Looking North toward the Hutong Neighborhood.

Figure 5.28 The Plaza Near the Fractured Wall Surface.

Figure 5.29 Section E-E'.

Figure 5.30 City Wall Corner Perspective.

Figure 5.31 Section F-F'.

Figure 5.32 Pergola Used for Airing Birds.

Figure 5.33 Section G-G'.

Figure 5.34 Section G-G' Detail.

Figure 5.35 Historic Yard Neighborhood Park.

Figure 5.36 Primary Entrance Plaza at the North End of the Site.

Figure 5.37 Liang's Concept Drawing of the City Wall Park.

Figure 5.38 Future Restoration Concept of the Historic City Pattern.

WORKS CITED

- Ashworth, Ian. "York City Walls." *Jorvik*. 20 Dec. 2013
 <<http://www.jorvik.co.uk/york-city-walls/>>.
- "Beijing Ancient Observatory." *Beijing Ancient Observatory*. 2012. Feb. 2014
 <<http://www.bjp.org.cn/bjao/index.html>>.
- "Beijing City Wall (北京城墙)." *360doc*. 2010. 20 Mar. 2012
 <http://www.360doc.com/content/10/1230/11/1688451_82562593.shtml>.
- Beijing Liao and Jin City Wall Museum. Educational Signage. Aug. 2013.
- Berlin Wall Memorial*. 23 Oct. 2013
 <<http://www.berliner-mauer-gedenkstaette.de/en/index.html>>.
- Beijing Municipal Administration of Cultural Heritage, et al. *The Gate of Imperial Capital* (帝都之门). Beijing: Beijing Fine Art Photography Publishing House, 2008.
- Boyle, Susan Calafate. "Natural and Cultural Resources—The Protection of Vernacular Landscape." *Cultural Landscape—Balancing Nature and Heritage in Preservation Practice*. Ed. Richard Longstreth. Minneapolis, MN: University of Minnesota Press, 2008. 150-163.
- "Chinese Ancient City Wall (中国古城墙)." *360doc*. 2009. Feb. 2014
 <http://www.360doc.com/content/09/0506/05/111790_3387732.shtml>.
- "Chinese Culture Relics Protection Regulations (中国文物古迹保护准则)." *China Culture Relics Protection Foundation*. Sep. 2011. 22 Dec. 2013
 <<http://www.ccrpf.org.cn/tabid/77/InfoID/836/Default.aspx>>.
- Communist Youth League. "Research about Beijing Hutong History and Protection Situation." *gqt*. Aug. 2011. Mar. 2014
 <http://zhuantigqt.org.cn/2011/2011sxx/dcyj/201108/t20110815_509660.htm>.
- "Construction of the Building." *Federal Chancellery*. 14 Apr. 2012
 <<http://www.bka.gv.at/site/3874/default.aspx>>.
- Deng, Congcong, and Jianwei Zhang (邓琮琮, 张建伟). "How did Liang Preserve Beijing City Wall (梁思成力保北京城墙)." *Landscape in China* (景观中国). 2004. 5 Apr. 2012
 <<http://www.landscape.cn/paper/zpsx/2004/20045542.html>>.

European Union. European Council. "The European Council—an official institution of the EU." *European Council*. 27 Oct. 2013
 <<http://www.european-council.europa.eu/the-institution>>.

Francis, Mark. "A Case Study Method for Landscape Architecture." *Landscape Architecture Foundation*. Sep. 1999.

"Freedom Trail." *City of Boston.gov*. 2 May 2012
 <<http://www.cityofboston.gov/freedomtrail/>>.

The Freedom Trail Foundation. April 26, 2012 <<http://www.thefreedomtrail.org/>>.

Gao, Wei, et al. *Rambling Beijing City* (漫话北京城). Beijing: Academy Press, 2003.

Gillon, J.K. "Cultural Heritage Charters and Standards." 19 Jan. 2011. 7 Nov. 2013
 <<http://gillonj.tripod.com/culturalheritagechartersandstandards/>>.

"Great Heritage Protection." *The Protection of Cultural Heritage Exhibition during "Fifteen."* 20 Nov. 2013 <http://www.sach.gov.cn/sach_tabid_628/tabid/635/Default.html>.

Guo, Jie (郭杰). and Ying Zhang (张颖). "Design and Construction of Topographical Elements in Parks of Historic Relics (遗址公园地形地貌要素的设计与营造研究)." *Journal of Anhui Agricultural Sciences* (安徽农业科学). 39. 13 (2011).

Hu, Piyun (胡丕运), et al. *Historical Photos of Old Beijing* (旧京史照). Beijing: Beijing Publishing House, 1995.

ICOMOS CHINA. "Introduction of ICOMOS CHINA." *ICOMOS CHINA* (中国古迹遗址保护协会). 20 Nov. 2013 <<http://www.icomoschina.org.cn/zggjyzbhhxh/24808.aspx>>.

ICOMOS. "Introducing ICOMOS." *ICOMOS*. 27 Oct. 2013
 <<http://www.icomos.org/index.php/en/about-icomos/mission-and-vision/mission-and-vision>>.

"The Imperial Palace." *Dong Hua Liu Yun*. Jan. 2014
 <http://www.bjdclib.com/subdb/laneculture/historybuilding/200906/t20090612_2106.html>.

Liang, Sicheng (梁思成). "Beijing—the Incomparable Masterpiece of Urban Planning (北京—都市计划的无比杰作)." *New Observation* (新观察). 2.7-8 (Apr. 1951).

Liang, Sicheng (梁思成). "Liang: the Discussion on the Abolition of the Beijing City Wall (梁思成：关于北京城墙存废问题的讨论)." *New Construction* (新建设). 2.6-7 (May 1950).

-
- Lu, Jiansong (陆建松). "Chinese Great Heritage Protection." *Fudan Journal: Social Sciences*. 6 (2005).
- Lu, Yinghong (卢迎红), et al. *Jin Zhong Du Water Pass Heritage Manual* (金中都水关遗址考览). Beijing: Beijing YanShan Publisher, 2001.
- Luo, Zhewen (罗哲文). "Heritage Conservation and Tourism Development (文物古迹保护与旅游事业的发展)." *Landscape in China*(景观中国). 2002. 21 Mar. 2012.
<<http://www.landscape.cn/paper/ycjg/2002/2002822.html>>.
- Luo, Zhewen, Suosheng Zhao, and Yangeng Gu (Eds.) (罗哲文, 赵所生, 顾砚耕). *China's City Walls* (中国城墙). Jiang Su Province: Jiang Su Education Press, 2000.
- New People's Republic of China. "Beijing Will Launch the Largest City Landmark Historic Building Restoration Project." *The Central People's Government of the People's Republic of China*. Feb. 2012. 20 Jan. 2014
<http://www.gov.cn/gzdt/2012-02/23/content_2074498.htm>.
- Ruan, Yisan (阮仪三). "Protection and Utilization of China's Historic City (中国历史古城的保护与利用)." *Landscape in China*(景观中国). 2007. 22 Mar. 2012.
<<http://www.landscape.cn/paper/jgrw/2007/200772975.html>>.
- UNESCO. "Ancient City of Ping Yao." *UNESCO*. 1995. 20 Mar. 2012
<<http://whc.unesco.org/en/list/812>>.
- UNESCO. "Introducing UNESCO." *UNESCO*. 27 Oct. 2013
<<http://en.unesco.org/about-us/introducing-unesco>>.
- United States. National Park Service. "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving Rehabilitating Restoring Reconstructing Historic Buildings." *National Park Service*. 4 Nov. 2013
<<http://www.nps.gov/hps/tps/standguide/>>.
- Wang, Jun (王军). *City Recording* (城记). Beijing: Life-Reading-Innovation Sanlian Publishing, 2003.
- Wang, Jun, Rongmei Jiao, and Mingming Wang. "Beijing Desheng Park Construction." *Chinese Landscape Architecture* 2 (2007): 45.
- Wolski, Nathan. *Berlin Wall--Past & Present*. Homepage. 2 May. 2012
<<http://berlinwall.soaringdevelopment.com/divisions.aspx>>.

- Xu, Xiaoran (徐晓然). "Facing the Reality of Beijing Urban Planning (北京城市规划直面现实)." *Landscape in China (景观中国)*. 2004. 24 Mar. 2012.
<<http://www.landscape.cn/paper/cs/2004/20048720.html>>.
- Xu, Yi (许轶). "The Publicity of Civic Plaza (市民广场的公共性)." *Doc88*. June 2003. 28 Nov. 2013 <<http://www.doc88.com/p-973196749912.html>>.
- Yang, Yin (杨茵), and Shun Lu (旅舜), et al. *Finding the Old Beijing (寻找老北京城)*. Beijing: China Nationality Art Photograph Publishing House, 2005.
- "The York City Walls." *History of York*. 20 Dec. 2013
<<http://www.historyofyork.org.uk/themes/the-york-city-walls>>.
- Zheng Yang Men. Educational Signage. June. 2012.
- Zhen, Xuefeng (镇雪峰). "The Protection Methods of Integrity and Entirety for Culture Heritage (文化遗产的完整性与整体性保护方法)." *Doc88*. Mar. 2007. 1 Nov. 2013
<<http://www.doc88.com/p-132711547565.html>>.
- Zhong, Jiatai (钟家台). "History of Nanjing City Wall (南京城墙史)." *360doc*. Feb. 2014
<http://www.360doc.com/content/11/0912/18/3218641_147707667.shtml>.
- Zhu, Jing, and Xijing Zhao. "Ancient Landscape Preservation and Large Concentrated Green Space Construction—With the Construction of the North Second Ring Road City Park, Beijing as the Example." *Chinese Landscape Architecture* 2 (2007): 40.